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CHARLTON
NURSERY
COMPANY
ROCHESTER
·NY·

GENERAL CATALOG
OF
FRUIT AND ORNAMENTAL
TREES

SHRUBS · ROSES · PÆONIES

SMALL FRUITS, ETC.

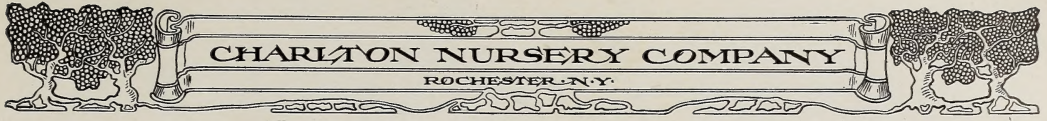


INCORPORATED 1902

CULTIVATED AND FOR SALE BY
CHARLTON NURSERY COMPANY
UNIVERSITY AVENUE NURSERIES
ROCHESTER, N. Y.

GROWERS · LANDSCAPE GARDENERS · IMPORTERS

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CHARLTON NURSERY COMPANY
ROCHESTER, N. Y.



THE growing importance of the UNIVERSITY AVENUE NURSERIES as a great and convenient center for the distribution of high grade Nursery stock, yearly demands more space for descriptive notes and views. They were established in 1865, and since that time their growth has been like unto one of their own fine trees, healthy, vigorous and rapid. Adopting the newest and up-to-date methods, covering all lines of outdoor decoration, until now they are superbly stocked with one of the most complete Nursery collections, especially of Ornamentals, in the United States.

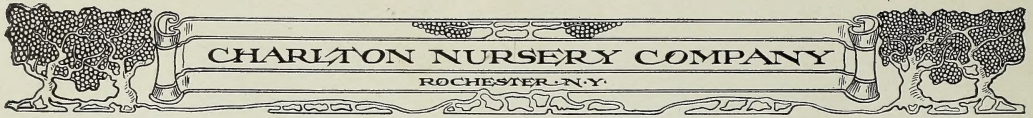
The collection, propagation and growth of such a stock as this required many years of careful, persistent research and toil, for we have striven for superiority of quality and genuineness of variety in every branch of our trade.

However, we do not recommend everything in this catalogue as being the very best or most desirable for everybody. Some varieties are best adapted to certain localities, others are singular or grotesque specimens of plant growth, admired by many, and wanted by only a few. Of the many species the distinction between the varieties is so slight that none but experts or amateurs will appreciate them, but it is our business to cater to all tastes, and therefore it is necessary to enumerate many things which are only valuable because rare or odd.

We are able to supply many items that do not appear in our catalogue, and should anything be desired that is not enumerated here, we shall be pleased to take the matter up through correspondence. Our location is in one of the most fertile fruit-growing regions in the State of New York, and gives us facilities for growing fruit and ornamental trees equalled by few and excelled by none; in fact, Rochester is the nursery center of the world.

Our Nurseries are easily accessible from all points, and we are pleased to have customers visit them on any day except the Sabbath. A much better idea of our stock can be obtained in this way, and we shall be pleased at any time to see any of our customers. Spindling odds and ends collected by brokers from the cheapest sources, may be had at less prices than our well pruned, bushy, symmetrical young trees, and yet not be worth the planting.

IF OUR PRICES ON ANY ARTICLE appear higher than those of some of our competitors, be assured that they are only enough higher to compensate



for the superiority and quality that we expect to give every purchaser. Life is too short to squander in nursing sickly trees or worthless varieties.

A CERTIFICATE OF INSPECTION as to healthfulness and freedom from disease accompanies every shipment of our stock.

LANDSCAPE GARDENING—Landscape Gardening as an art is becoming better understood than formerly, which fact has already been manifested in the increasing demand for more artistic designs for the laying out and planting of ornamental grounds.

We are prepared to attend to all the details of landscape art, including a topographical survey of lawns or other grounds by an experienced engineer, grading, locating and making roads and drives, arranging and planting trees, shrubs, vines, etc. Selection of desirable sorts for orchards or fruit gardens may also be left to us.

Anyone requiring the services of a Landscape Architect, is invited to correspond with us.

HAVING AN IMMENSE STOCK from which to make selections, we claim that our facilities to render full satisfaction in the way of laying out grounds and in new planting are unsurpassed.

AVENUE AND STREET PLANTING—Our magnificent blocks of Sugar and Norway Maples, Oaks, Lindens, Elms and Ashes speak for themselves as to our ability to supply trees for this purpose, and to please both the taste and the pocketbook.

PARKS AND CEMETERIES—Especially do we solicit calls from the superintendents of Parks, Cemeteries and Public Grounds, in person or by letter. We have a very fine collection of Shrubs, Vines and Trees suitable for planting for immediate effect.

ESTIMATES—When assortments of Trees, Plants or Shrubs are wanted in quantity, send us a list for an estimate of cost, as we are frequently able to make some reductions in price on such orders.

"OUR FRIENDS STAY WITH US"—We never regard the present transaction with any one as the last one we are likely to have with them, but as a preliminary to future business. We believe this has much to do with the fact that our customers remain our customers.



FRUIT DEPARTMENT



SELECT APPLES

The first fruit, both in importance and general culture, is the Apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use as well as for market.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard.

As fruit has become cheaper on account of the increased supply, a large and constantly increasing European export has sprung up, which affords highly remunerative prices for the best selected specimens of our orchards, while the process of "evaporation" of fruit has

become a recognized auxiliary to the horticulture of the land.

If apples are planted at the rate of fifty trees per acre, rows of peach trees can be planted between the apples, which, growing more quickly than the apple trees, soon protect them from the winds, and thus are a great benefit to them. After eight or ten years of productiveness, as the space is needed for apples, the peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his trouble.

Our list embraces a most careful selection of the best sorts for the several seasons, and few, if any, are omitted, that have proved worthy of general culture.

Dwarf Apples

Where space is limited, dwarf apples may be advantageously planted. Of these we grow a limited number of the best varieties.

Summer Apples

Caroline Red June—A popular variety for the South and West; small to medium; deep red; productive, hardy and a free grower. June and July.

Early Harvest—Medium size, round, straw color; tender, sub-acid and fine; productive. July and August.

Early Strawberry—Medium, roundish; handsomely striped with red; excellent; productive. July and August.

Red Astrachan—Large, roundish, nearly covered with deep crimson, overspread with a thick bloom; juicy, rich, acid; a good bearer. July and August.

Sweet Bough—Large; pale greenish yellow; tender and sweet; good bearer. July and August.

Tetofsky—A handsome Russian apple, very hardy and productive; an early bearer; fruit medium to large; yellow, striped with red; acid flavor. July and August.

Yellow Transparent—A very early Russian apple of good quality and decided merit; color when ripe, pale yellow; quality good. July and August.

Autumn Apples

Alexander (Russian origin)—Very large; deep red or crimson; medium quality. October.

Autumn Strawberry—Medium; streaked; tender, juicy, sub-acid, fine. Vigorous and productive. September and October.

Duchess of Oldenburg—Russian; medium to large size; skin yellow, streaked with red, and somewhat blushed, sometimes with a faint blue bloom; flesh juicy and good, with a rich, sub-acid flavor; productive. September.

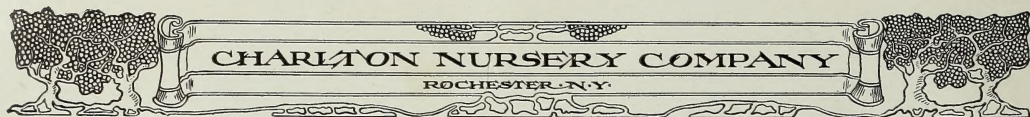
Fall Pippin (Pound Pippin)—Very large, yellow; tender, juicy and rich; fine in all localities. Tree vigorous. September and October.

Fameuse (Snow Apple)—Medium size; roundish; very handsome; deep crimson; flesh snowy white, tender, juicy, high flavored and delicious; tree vigorous, productive and very hardy. October and November.

Gravenstein—Large, striped and beautiful; tender, juicy and high flavored; productive. September and October.

Haas (Gros Pommier, Fall Queen)—Medium size; pale greenish yellow, shaded and striped with red; tender, juicy, sub-acid. Tree vigorous and very hardy; upright grower; bears early and abundantly. September to November.

Jersey Sweet—Medium; striped red and green; very sweet, rich and pleasant. Good grower and bearer. August to October.



Autumn Apples—Continued

Maiden's Blush—Medium size, flat, quite smooth and fair; pale yellow, with beautiful red cheek; tender, sprightly, pleasant acid flavor. Fair grower and good bearer. August to October.

Pumpkin Sweet (Pumpkin Russet, Pound Sweet)—A very large, round, yellowish russet apple, very sweet and rich. Tree a vigorous, rapid, upright grower, valuable. September to November.

Rambo—Medium size, flat, yellowish white in the shade, streaked and splashed with pale red in the sun; flesh greenish white, very tender, rich and mild. Not suitable for all sections. October to December.

Red Bietigheimer—A rare German variety. Fruit large to very large; skin pale green color, mostly covered with purplish crimson; flesh white, firm, sub-acid, with a brisk pleasant flavor. Tree a free grower and an abundant bearer. This is one of the largest and handsomest of apples. September and October.

Rolfe—Originated in Guilford Center, Me., where it is grown very extensively and regarded as perfectly hardy. A good bearer and of fine quality. Sub-acid and very small core; excellent for cooking or the table, and classed as one of the most attractive and best selling varieties. October to December.

Sherwood's Favorite, or Chenango Strawberry—Medium size, oblong, and indistinctly ribbed; of a light color, splashed with dark crimson; flesh white, juicy, very mild and tender, slightly sub-acid, good. August and September.

Winter Apples

Arkansas Black—Originated in Northwest Arkansas, and is an enlarged and improved Winesap. Fruit almost black; flesh firm, rich, crisp, with a rich, high flavor. November to February.

Bailey Sweet—Large; deep red; tender, rich, sweet. Vigorous, upright, good bearer. November to April.

Baldwin—Large, roundish; deep bright red; juicy, crisp, sub-acid, good flavor. Tree vigorous, upright, and very productive of fair, handsome fruit. In sections where it thrives, one of the best and most popular winter apples. January to April.

Baxter—Originated in Canada. Fruit uniformly large, handsome, delicious, mild acid. Tree extremely hardy, vigorous and productive. December to May.

Belle de Boskoop—Pronounced one of the most beautiful and profitable of the Russian varieties. Large; bright yellow, washed with light red on the sunny side, and sometimes with a sprinkling of russet; flesh crisp, firm, juicy, sprightly sub-acid; quality very good. February to April.

Bellefleur (Yellow Bellflower)—Large, irregularly oblong; rich yellow color; flesh tender, juicy, crisp, with a very sprightly flavor; tree a moderate grower. November to March.

Ben Davis (New York Pippin, Kentucky Streak, etc.)—Large, handsome, striped and of good quality; productive; a late keeper; highly esteemed in the West and Southwest. December to March.

Bismarck—Originated in New Zealand, showing wonderful productiveness and early fruiting. A stocky grower, making a small, low tree, which sends out fruiting spurs and buds at a very early age. A large, handsome apple, of greenish yellow ground overspread and streaked with crimson and carmine; excellent for cooking. October to January.

Bottle Greening—Resembles Rhode Island Greening in size and flavor, but tree is a better grower and much hardier. A native of Vermont. December to March.

Cooper's Market—Medium conical; yellow, striped with crimson; flesh white, tender, brisk, sub-acid; vigorous, upright grower. December to May.

Delaware Red—Closely resembling and perhaps identical with Lawver; large, bright red; flesh crisp, juicy, rich, sub-acid. This variety is highly recommended for its admirable keeping qualities, having been preserved in to August (ten months). January to July.

English Russet—Medium; pale yellow, nearly covered with russet; firm and crisp, with a mild sub-acid flavor; very valuable on account of its long-keeping properties; tree a very upright and vigorous grower; produces enormous crops. Very desirable; keeps till June.

Fallawater—Very large; roundish; yellow, with generally a red cheek; mild sub-acid; a popular Pennsylvania apple. October to February.

Gano—Originated in Missouri. Form conical, good size and smooth; deep red, shaded on the sunny side to mahogany, very attractive; flesh pale yellow, fine grained, tender, pleasant, mild sub-acid; is a good shipper and keeper. Tree healthy, vigorous and hardy; an annual and prolific bearer. January to May.



Winter Apples—Continued

Gideon—Raised in Minnesota. An upright grower; medium to large; color yellow, with vermilion blush on sunny side; mild acid; quality very good. December to March.

Golden Russet—Medium size; dull russet with a tinge of red on exposed side; flesh generally crisp, juicy and high flavored. Tree a vigorous grower and a great bearer. Very popular. November to April.

Grimes' Golden—Medium; rich golden yellow; flesh crisp, tender, juicy, with a peculiar aroma; tree a good grower and early bearer; origin, Virginia. December to April.

Hubbardston Nonsuch—Large, striped yellow and red; tender, juicy and fine; strong grower and good bearer. October to April.

Jacob's Sweet—A large, handsome, showy apple originating near Boston, Mass. Almost round, greenish yellow with red cheek. Excellent quality and good keeper. Strong grower and heavy bearer. One of the best sweet apples. December to January.

Jonathan—Medium size; deep red; flesh tender, juicy and rich; very productive. One of the very best varieties for the table, cooking or market. November to March.

King (Tompkins County)—Large and handsome, striped red and yellow; tree vigorous and productive; one of the best. November to May.

Lady—A beautiful little dessert fruit; flat; pale yellow, with a deep red cheek; juicy, rich and pleasant. November to May.

Longfield—A Russian variety. Tree a free, upright grower; an early and abundant bearer. Medium to large; yellow, with a flush on the sunny side like the Maiden's Blush; rich, sprightly, sub-acid; quality good. December to March.

Mammoth Black Twig—One of the most profitable and valuable for market. Resembles Winesap except that it is from a third to a half larger. December to April.

Mann—An upright grower, forming a round head; fruit medium to large; roundish-oblately; skin deep yellow when fully ripe, with sometimes a shade of brownish-red where exposed; flesh yellowish, juicy, mild, pleasant sub-acid; good to very good. January to June.

McIntosh Red—An exceedingly valuable, hardy, Canada sort. Medium size; nearly covered with dark red; flesh white, fine, very tender, juicy, and refreshing. A good annual bearer of fair handsome fruit. Resembles the Fameuse, but larger and more hardy and fully equal in quality to this standard sort. October to February.

Newtown Pippin—One of the very best apples; high quality. Very juicy, crisp and of delicious flavor; requires high culture for the best fruit; fine keeper. December to May.

Northern Spy—Large, roundish, slightly conical, somewhat ribbed; striped, with the sunny side nearly covered with purplish-red; flesh white and tender, with a mild sub-acid, rich and delicious flavor. The trees should be kept open by pruning, so as to admit the air and light freely. January to June.

Northwestern Greening—Greenish yellow, good size, fine quality. Hardy. December to April.

Opalescent—Large, bright red, shading to very dark crimson. The flesh is yellowish, tender, juicy and good. One of the handsomest and best apples ever introduced. December to March.

Peter—Origin Wealthy seed, and in form, size and color an exact duplicate of the parent, but differing in flavor and season, keeping from four to six weeks longer. The tree is perfectly hardy. November to March.

Pewaukee—A seedling from Duchess of Oldenburg. Fruit medium to large, surface bright yellow, partially covered with dull red; flesh yellowish-white, crisp, juicy; flavor sub-acid, rich, aromatic, spicy, something like the Jonathan; quality good. Tree strong grower and very hardy. December to May.

Rhode Island Greening—Large, roundish; light greenish yellow; tender, rich and juicy; a crooked but vigorous grower. November to March.

Rome Beauty—Large, yellow, with red cheek, handsome; good quality; moderate grower. Good bearer. December to May.

Roxbury Russet (Boston Russet)—Rather large; greenish yellow, mostly covered with bright russet; a pleasant sub-acid flavor. January to June.

Salome—Tree a strong grower; equals Wealthy in hardiness; an early and annual bearer; fruit of medium and uniform size; quality very good, which it retains even into the summer; keeps well with ordinary care until July.

Seck-no-Further (Westfield)—Medium to large; slightly russeted, with dull red stripes; tender, rich, spicy and fine; good bearer. November to February.

Spitzenburg, Esopus—Medium to large; deep red; flesh yellow, crisp, sub-acid, high flavored. Bears and grows well transplanted in rich soil. November to April.

Winter Apples—Continued

Stark—Esteemed as a long keeper and valuable market fruit. Fruit large, roundish; skin greenish yellow, much shaded with light and dark red, and sprinkled with brown dots; flesh yellowish, juicy and mild sub-acid. January to May.

Sutton Beauty—Fruit large, waxy yellow, striped with crimson; flesh white, tender, juicy, mild acid; quality good and a remarkable keeper. Tree vigorous, a handsome grower, very productive. One of the most valuable market sorts. October to February.



WEALTHY

Tolman Sweet—Medium; pale yellow, slightly tinged with red; firm, rich and very sweet; the most valuable baking apple; productive. November to April.

Twenty Ounce (Cayuga Red Streak)—Very large, nearly round; yellow, striped with red, quality good. Vigorous and good bearer. Popular as a market variety. October to January.

Wagener—Medium to large; deep red in the sun; flesh firm, sub-acid and excellent; very productive; bears very young. November to February.

Walbridge—A handsomely striped, medium-sized apple of good quality; very hardy. February to May.

Wealthy—Originated in Minnesota. Hardy, vigorous and very productive. Fruit large, oblate, skin smooth, whitish yellow, shaded with deep red in the sun, splashed and spotted in the shade. Flesh white, fine, tender, juicy, lively sub-acid; very good. Doing well in nearly all sections, one of the most desirable late fall and early winter varieties. October to February.

Winesap—Medium; dark red; sub-acid, excellent. Tree a moderate grower and abundant bearer. A favorite market variety in the West. November to May.

Winter Banana—Large, clear pale yellow, with beautiful pinkish red blush. Flesh crisp, tender, juicy with mild sub-acid flavor resembling a banana. Bears young.

Wolf River—A beautiful fruit of the very largest size. Originated near Wolf River, Wisconsin, and may well be classed among the iron-clads. Skin greenish yellow, shaded with crimson; flesh white, juicy, tender, with a peculiar, pleasant, mild sub-acid flavor. Tree a strong, stout grower and great bearer. January and February.

York Imperial—Of medium size, truncated, oval, angular; skin greenish yellow; flesh tender, crisp, aromatic. Highly esteemed. November to January.

Extra Hardy, or Iron-Clad Apples

The opinion has prevailed that the attempt to produce valuable apples in the northern sections of New York, New England, and the adjoining portions of Canada, Wisconsin, Minnesota, and other sections unfavorable for generable fruit growing, must prove a failure. While this is true as to many varieties successfully grown in more temperate or favorable regions, its general application is quite erroneous. Experience in growing Russian, or other varieties of northern origin, has shown that a limited variety of fine apples can be grown as far north as Montreal, and that some of these varieties may be planted with equal profit in all sections, North and South.

Below we give a list of the most valuable extra hardy apples:

SUMMER

Tetofsky **Yellow Transparent**

AUTUMN

Alexander **Red Bietigheimer**
Duchess of Oldenburg **Rolfe**
Fameuse

WINTER

Arkansas Black	Mann
Baxter	McIntosh Red
Belle de Boskoop	Peter
Delaware Red	Pewaukee
Gano	Salome
Gideon	Walbridge
Grimes' Golden	Wealthy
Longfield	Wolf River



Select Crab Apples

As an ornamental fruit, and for jellies, preserving, etc., the Crab Apple is unequalled. All are very hardy and prolific, come into bearing when very young, and command a ready and profitable market. We name the best sorts.

Gen. Grant—Large, round; yellow, striped with dark, almost black, red on sunny side; flesh white, fine grained, mild sub-acid. October.

Hyslop—Large, roundish-ovate; dark red, with a blue bloom; flesh yellowish; excellent for cider; tree hardy. October to December.

Martha—Immensely vigorous, hardy, producing every year. Mr. Gideon says: "For sauce it surpasses any apple we ever grew." A great acquisition. October.

Red Siberian—About an inch in diameter, grows in clusters; yellow, lively scarlet cheek; bears young and abundantly. September and October.

Transcendent—Tree immensely productive, bearing after second year, and producing good crops by the fourth season. Fruit from one and a half to two inches in diameter, being large enough to quarter and core for preserving and drying. Excellent for sauce and pies, both green and dried. The best of its class for cider and all other purposes, being juicy and crisp. Skin yellow, striped with red. September and October.

Whitney's Seedling—Large; splashed with carmine; flesh firm, juicy and rich. A great bearer and very hardy. Tree a vigorous, handsome grower. Has no superior, if an equal. August.

Yellow Siberian—Nearly as large as the Red Siberian; fine amber or golden-yellow color. September and October.

SELECT PEARS

Standard Pears prefer a strong loam, but succeed well in a great variety of soils, and upon almost any land that will produce good crops of vegetables or grain.

Pears will keep longer and their flavor be greatly improved by picking before they are quite mature, and ripening them in the house. By a judicious selection of varieties their season can be extended from July to February.

Dwarf Pears are suited to garden culture, or where space is limited. Can be planted 8 or 10 feet apart, and deep enough to cover the union of the stock and scion, and be trained low by proper shortening of the terminal branches. These conditions being observed, they will be found very satisfactory, though we urge, where space is ample, that Standard trees be planted.

The letters "D" and "S" appended to the description of varieties, indicate favorable growth, either as "Dwarfs" or "Standard," or both. Those designated as "moderate growers" are usually smaller trees.

Summer Pears

Bartlett—Large size, with often a beautiful blush next the sun; buttery, very juicy and high flavored; bears early and abundantly; very popular. D. and S. August and September.

Clapp's Favorite—Large size; pale lemon yellow; flesh fine grained, juicy, melting, rich and buttery; a cross between Bartlett and Flemish Beauty; earlier than Bartlett and resembling the Flemish Beauty in growth. It is equally hardy with Flemish Beauty; a good grower and productive. In season during August and September. Care should be taken to pick the fruit at least ten days before it would ripen upon the tree. August and September. D. and S.

Doyenne d'Ete—Small size; yellow, with a blush on sunny side, melting and sweet, with pleasant flavor; tree a strong grower and very productive. In season during August. D. and S.

Osband's Summer—Medium size, inclined to round; juicy and melting, with a rich, sugary flavor, and often slightly perfumed; tree moderately vigorous, an erect grower, and very productive. In season during August. D and S.

Tyson—Above medium size; deep yellow at full maturity, slightly russet, with a crimson cheek; melting, juicy and fine flavored; a vigorous and rapid grower. One of the finest summer varieties. In season during August. D. and S.

Wilder—Small to medium; greenish yellow, with red cheek; handsome, sweet, delicious. July and August. D. and S.



BARTLETT
(See Page 9)

Autumn Pears

Anjou (Beurre d'Anjou)—A large, handsome pear; buttery and melting, with sprightly, vinous flavor; tree a vigorous grower and good bearer. We have no hesitation in pronouncing it to be the most valuable pear in the catalogue. Does equally well as a standard or dwarf. Keeps until the winter holidays, when it commands very high prices in market. D. and S.

Beurre Clairgeau—Its size, early bearing, productiveness and beauty render it a profitable market variety. Very large; light yellow, shaded with crimson and russet; an early

and abundant bearer. Keeps sound a long time after being gathered. November to January. D. and S.

Duchess d'Angoulême—Very large, with rough and uneven surface; of greenish yellow, with patches of yellow and a dull red cheek; a vigorous and strong grower and a good bearer while quite young. It attains its greatest perfection grown as a dwarf. In season during October and November. D.

Flemish Beauty—Large size; greenish yellow and brown; rich and juicy. An old and highly esteemed variety; a strong grower and a great bearer; hardy and desirable. In season during September and October. S.

Garber—A Japan hybrid, earlier than Kieffer; large and much better quality; free from blight, very hardy, immensely productive, bears young; excellent for canning and preserving. September and October.

Howell—Large size; light waxen yellow, sweet and melting; excellent quality; a strong and hardy grower and good bearer. Season September and October. D. and S.

Kieffer's Hybrid—The tree is a vigorous grower, an early and regular bearer and very productive; fruit large, rich yellow, tinged with red, somewhat russety and very handsome; flesh white, buttery and juicy. A good canning pear. October. D. and S.

Louise Bonne de Jersey—Large size, oblong pyriform; pale green in the shade but overspread with brownish red in the sun; very juicy and melting with a rich and excellent flavor; succeeds better on the Quince than on the Pear root. In season during September and October. D. and S.

Seckel—Small size; yellowish russet, with red cheek; flesh whitish, buttery, very juicy and melting. The richest and finest variety known and extensively planted all over the country. A prolific bearer. September and October. S.

Sheldon—Large size; roundish; greenish yellow, mostly covered with thin light russet; very juicy, melting, sweet and vinous; a fine grower and good bearer, but must be double worked on the Quince. October and November. S.

Worden-Seckel—A seedling of the Seckel, which it much resembles in flavor; is equally as luscious, more juicy, with an aroma fully as rich and inviting, while in size, form, color and appearance it is far superior to its parent. Color, bright red on one side and light golden yellow on the other. Very hardy; bears young, and is an enormous producer; ripens just after Seckel; a splendid keeper. D. and S.



A BLOCK OF PEACHES IN OUR NURSERIES

SELECTED PEACHES

The ease with which Peach trees may be cultivated, their comparative freedom from disease, the short period before they become productive, with the immense demand for the fruit and the facilities with which it may be shipped to distant markets, make peach growing extremely profitable.

To secure healthy, vigorous and fruitful trees, the ground must be kept clean and mellow, and it should receive an occasional dressing of wood ashes. It should be remembered that peaches are all borne on wood of the previous season's growth, and that this makes it absolutely necessary to prune the trees yearly, to remove dead branches and let in light and air, and keep the trees in good shape to produce bearing wood. (f) for free-stone; (c) for cling; (s-c) for semi-cling.

Beer's Smock—Large to very large; yellow, with red cheek; flesh yellow and of the very best quality for the season; a regular and enormous bearer, making it very desirable for market purposes. September. (f.)

Belle of Georgia—Very large; white, with red cheek; flesh white, firm and of excellent flavor. Tree a rapid grower and very productive. Early July. (f.)

Carman—A new hardy rot-proof peach, ripening at same time as Early Rivers, yet almost as large and fine as Elberta. Skin pale yellow with blush on sunny side; flesh white, tender, sweet and melting. Ships well. Middle of August. (f.)

Chair's Choice—Large; deep yellow, with red cheek; flesh yellow and very firm. Ripens in October. (f.)

Champion—Beyond doubt this is the champion early peach of America. Tree and fruit buds extremely hardy—has stood 18 degrees below zero and produced a full crop the following summer. The flavor is delicious, sweet, rich and juicy; skin creamy white with red cheek, strikingly handsome. Hardy, productive; a good shipper. Last of August. (f.)

Crawford's Early—A magnificent large yellow peach of good quality. Tree vigorous and very productive. Its fine size, beauty and productiveness make it one of the most popular sorts; no other variety has been so extensively planted. First of September. (f.)

Crawford's Late—Fruit of large size; skin yellow or greenish yellow, with dull red cheek; flesh yellow. Tree vigorous; moderately productive; one of the finest late sorts. Last of September. (f.)

Crosby—Originated in Conn. It has stood 22 degrees below zero without injury to the tree or fruit buds, and in every other respect has proved a remarkably fine peach for home use or market. Ripens just before Crawford's Late. Middle of September. (f.)

Early Canada—Originated at Jordan, Canada. As early as the earliest. Of good size, fine quality and handsome appearance. Its earliness, hardiness and the fact that the



flesh clings but slightly to the stone, create an unusual demand for trees of this variety. July. (c.)

Early Rivers—Large; color creamy white, with a delicate pink cheek; flesh melting, with a remarkably rich, racy flavor. Larger and ten days later than Alexander. One of the finest of all peaches for home use or near-by market. Middle of August. (s-c.)

Elberta—The great market peach of the South and Southwest. It is perfectly hardy at the North, and is confidently believed by the most experienced fruit growers at the North to be one of the very best peaches for home use or the market. September. (f.)

Fitzgerald—Origin Canada. Fully equal to Crawford's Early in size, quality and color, with much smaller pit; a very early bearer, often when two years from bud; extra hardy, succeeding in Canada and in Michigan perfectly; fruit large, brilliant yellow with red cheek; highest quality; ripens after Crawford's Early. (f.)

Foster—Originated near Boston, Mass. Large; deep orange red, becoming very dark on sunny side; flesh yellow, very rich and juicy, with sub-acid flavor. September. (f.)

Globe—A rapid, vigorous grower, and an enormous bearer. Fruit very large, globular in form; flesh firm, juicy, yellow, shaded with reddish crimson toward the pit or stone; quality good; very rich and luscious. September. (f.)

Greensboro—The largest and most beautifully colored of the extra early peaches; double the size of Amsden's June; ripens with Early Rivers; flesh white, juicy and excellent. (s-c.)

Iron Mountain—White; freestone; quality good; very hardy in bud; white inside at pit. September.

Mayflower—A new variety of the greatest merit. In color it is practically red all over, even before it is ripe enough to ship. It is the earliest Peach known and therefore extremely valuable as a market variety. A strong, thrifty grower and an abundant bearer. (f.)

Morris White—Medium; dull white; flesh white; juicy and delicious; productive. Middle of September. (f.)

Mountain Rose—Large; red; flesh white, juicy, rich and excellent; one of the best early peaches. Should be in every collection. First of August. (s-c.)

Niagara—Large; beautiful and luscious. An excellent shipper. In Niagara county, N. Y., where it originated, it has borne heavy crops of uniformly large fruit every season for the past six years, and it has shown complete freedom from blight and other forms of decay. Early September. (f.)

Old Mixon Cling—Large; pale yellow, with red cheek; juicy, rich and high flavored; one of the best clingstone peaches. Last of September. (c.)

Old Mixon Free—Large; pale yellow, with a deep red cheek; tender, rich and good; one of the best. First to middle of September. (f.)

Salway—Fruit large, roundish; deep yellow, with a rich, marbled, brownish red cheek; flesh yellow, firm, juicy, rich and sugary. October. (f.)

Smock—Large size; light orange yellow, with red cheek; flesh yellow, juicy and rich. October. (f.)



CRAWFORD'S EARLY

(See Page 15)

Stump—Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. End of September. (f.)

Triumph—Earliest yellow flesh peach known, and almost a freestone; ripens just after Alexander; fruit good size, yellow with crimson cheek. (s-c.)

Wager—Medium; yellow, colored in the sun; juicy and of fair flavor. The trees have remarkable vigor and vitality. Valuable for drying and canning. Very hardy. Last of August. (f.)

Wheatland—Fruit large; color golden yellow, with crimson tint; flesh firm and of fine quality. September. (f.)

Wonderful—Large, uniform in size and shape; color rich golden yellow, largely overspread with vivid carmine, with ramblings of crimson. Flesh yellow, rich, high flavored and delicious, exceedingly firm; bright red at pit, which is very small and from which it parts freely. Middle of October. (f.)



SELECT APRICOTS

American Varieties

A delicious fruit of the plum family, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; it bears immense crops, ripening in July and August.

Acme—Large, yellow, red cheeked; vigorous, hardy and productive. July.

Early Golden—Small; pale orange; juicy and sweet; hardy and productive. First of July.

Harris—Remarkable for size, beauty and productiveness. Is extremely hardy, standing the severest winters. Fruit of rich golden yellow and of the finest quality. Middle of July.

Moorpark—One of the largest; orange, with a red cheek; firm, juicy, with a rich flavor. Very productive. August.

Russian Varieties

These are quite distinct from other European varieties. Their leading characteristics are extreme hardness, early bearing, productiveness, and freedom from disease.

Alexander—An immense bearer. Fruit yellow, flecked with red; very beautiful. July.

Alexis—An abundant bearer; yellow, with red cheek; slightly acid. July.

Catherine—Vigorous and productive. Medium sized, yellow, mild, sub-acid. July.

Gibb—Tree grows symmetrical; productive. Fruit medium, yellowish, sub-acid; the best early variety, ripening soon after strawberries. Last of June.

J. L. Budd—Tree a strong grower and profuse bearer. Fruit white with red cheek; sweet; the best late variety. August.

SELECT GRAPES

The Grape is the most healthful of all fruits, and the most highly esteemed for its many uses. It can be grown by everyone who has a garden, a yard, or a wall. It can be confined to a stake, bound to a trellis, trained over an arbor, or extended until it covers a large tree or building, and still it yields its graceful bunches of luscious fruit. Capable of most extraordinary results under wise management, it is prone also to give the greatest disappointment under bad culture or neglect. Other fruits may be had from plants that know no care; but grapes are to be had only through attention and forethought.

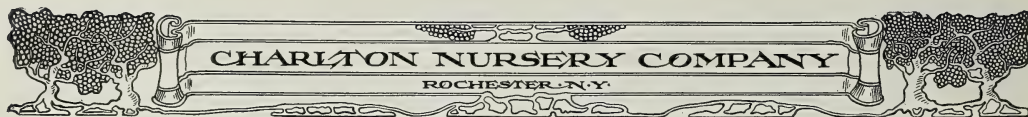
Soils.—Good grapes are grown on various soils, sandy, clayey, loamy, etc. The soil must be well drained, and there should be a free exposure to the sun and air. Hillsides unsuitable for other crops are good places for grapes.

Crops.—Crop moderately if you would have fine, well ripened fruit. A vine is capable of bringing only a certain amount of fruit to perfection, proportioned to its size and strength; but it usually sets more fruit than it can mature; reduce the crop **early in the season** to a moderate number of good clusters, and cut off all the small inferior bunches; the remainder will be worth much more than the whole would have been. A **very heavy crop** is usually a disastrous one.

Pruning.—Annual and careful pruning is essential to the production of good grapes. If the roots are called upon to support too much wood, they cannot bring to maturity a fine crop of fruit. The pruning should be done in November, December, February or March, while the vines are entirely dormant.

Training Vines.—There are many methods of training grape vines, but as trellises are more generally employed, we will confine our suggestions to a description of the trellis method. To construct a trellis, take posts of oak, cedar or chestnut, 8 to 10 feet long; set them 3 feet in the ground and about 12 feet apart. Stretch No. 9 galvanized wire tightly along the post, and fasten them to each. Let the first wire be 18 inches from the ground, and the distance between the wires about 12 inches. Wooden slats about 1 x 2 inches may be substituted for wires. Trellises should be at least 10 feet apart; a greater distance is preferable. Set the vines about 20 feet apart. Prune the vines to two canes each for two years after they are planted. In February or March these canes should be cut back to 5 or 6 feet each, and tied along the lower wire or slat of the trellis, horizontally.

When the growth commences in spring, the young shoots must be reduced by dis-budding, so that they may stand about a foot apart on



the cane, selecting, of course, strong, healthy shoots; as they grow they are tied up to the second, third and fourth wire or slat, and all superfluous ones removed, as well as the young **laterals** which will appear on vigorous vines; but the fruit-bearing shoots are allowed to extend themselves at will until September, when they may be pinched off at the ends to assist the ripening of the wood.

Gathering and Keeping.—Grapes for keeping to be used in their fresh state should be allowed to remain upon the vines until perfectly matured, but not much longer. Pick them when perfectly dry. Let them stand in open baskets or boxes for about ten days, in a cool, dry room, and after sorting out all decayed or imperfect berries pack them in shallow boxes and cover closely. Use no paper, but basswood or elm boxes, if convenient. Pine and other resinous woods should not be used, as they flavor the fruit disagreeably. After packing, keep the boxes where it is both cool and dry. Under careful management some varieties may be kept until spring.

Black Grapes

Barry (Rogers' No. 43)—Bunch large but rather short; berries large, roundish, much like Black Hamburg; delicate, sweet and tender. Middle of September.

Campbell's Early—The wonderful new seedling of the distinguished horticulturist, George W. Campbell, of Ohio. Vine healthy, hardy, vigorous and a profuse bearer; bunch and berry large and handsome; quality A 1; ripens with Moore's Early, but keeps either on the vine or in the house for weeks.

Concord—A large, handsome grape, very hardy and productive. Succeeds over a great extent of country; is one of the most popular market grapes. Ripens middle to last of September.

Eaton—Bunch very large, weighing 12 to 20 ounces; compact, often double shouldered; berries very large, many one inch in diameter; round, black, covered with a heavy blue bloom; adheres firmly to the stem. Skin thin, but tough; pulp tender, dissolving readily in the mouth. Very juicy; good as Concord, with much less of the native odor. Ripens with Concord or a little earlier.

McPike—A seedling of the Worden; fully as vigorous, hardy and productive; ripening at same time. Bunch very large, compact, black with blue bloom; berries mammoth size, usually three inches in circumference. Has been well tested and easily takes first rank as the best large grape.

Moore's Early—Bunch large, berry round; color black, with a heavy blue bloom; quality better than the Concord. Vine exceedingly hardy; has been exposed to a temperature of more than 20 degrees below zero without injury, and is entirely exempt from mildew or disease. Its earliness makes it desirable for an early crop, maturing as it does ten days before the Hartford, and twenty before the Concord.

Wilder (Rogers' No. 4)—Bunch very large; berry large, round, black; flesh tender, juicy, sweet. Ripens about with Concord; vine vigorous, hardy and a good bearer. Regarded as one of the best of the black varieties, and on account of its size and beauty is very valuable for market.

Worden—Said to be a seedling of the Concord. Bunch large, compact, handsome; berries large—larger than those of the Concord. It ripens a few days earlier, and is superior to it in flavor. Destined to become very popular for the vineyard and garden.

Red Grapes

Agawam (Rogers' No. 15)—Bunches large; berries large, round; color dark red or maroon; flesh quite tender, juicy, vinous; vine vigorous and productive. Not suited to the extreme North. Last of September.

Brighton—A superior family grape. Its remarkable vigor and hardness of vine, large bunches, rich wine shade of the ripened berry, delicate skin, tender, almost seedless pulp, sugary juice and rich flavor, are combined qualities that are not united in such a degree in any other sort. It ripens a week or ten days before the Delaware, and bears most abundantly. Especially commended as a standard variety for the vineyard or garden. First of September.

Catawba—Well known as the great wine grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery-red color, becoming purplish when well ripened; requires the most favorable soils and situations, good culture and warm seasons to mature perfectly. Last of September.

Delaware—One of the finest grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy, with an exceedingly sweet and delicious flavor; moderate grower, hardy and productive. September.

Lindley (Rogers' No. 9)—Bunch medium, somewhat loose; berry medium to large; round; color a rich shade of red, rendering



CAMPBELL'S EARLY

(See Page 18)

it a very handsome and attractive grape; flesh tender, sweet, with a rich, aromatic flavor; ripens soon after the Delaware; vine vigorous and productive.

Salem—Bunch large and compact; berry large, of a light chestnut or Catawba color; thick skinned, perfectly free from hard pulp; very sweet and sprightly, with a most exquisite aromatic flavor; as early as the Delaware.

White Grapes

Green Mountain (Winchell)—New. Found growing in a garden on the side of the Green Mountains in Vermont, at an altitude of 1,400 feet, where it ripens its fruit perfectly. Vine strong, vigorous, healthy, very hardy and productive. Bunch long, compact, shouldered. Color green or greenish white; skin thin; pulp exceedingly tender and sweet. Very early, being three weeks earlier than Concord.

Moore's Diamond—A cross between Concord and Iona. A vigorous grower, with leaf resembling Concord, very free from mildew. Bunch large, well filled, moderately compact, berry about the size of Concord, flesh melting and juicy, sweet to the center, and free from foxiness; skin thin, but sufficiently tough to bear packing and handling well. Ripens about with Delaware. Very productive.

Niagara—The vine is a strong grower and very hardy. Bunches very large and uniform and very compact; berries larger than Concord, and skin thin but tough, which insures their shipping qualities; quality good, very little pulp; melting and sweet to center; ripens before Concord.

Pocklington—Bunch large; berry large, round, of a rich yellow color; flesh pulpy, juicy and of good quality; ripens at the time of the Concord. Vines vigorous, healthy, very hardy and productive. Quality good.



SELECT CURRANTS

The Currant is one of the most productive and best paying small fruit that we have. There is, we believe, more profit to the acre in Currants than any other fruit that can be planted. They can be planted between the rows of trees, provided, of course, the ground is kept cultivated and clean and thus enhance the value of that section of the orchard, returning practically double value per acre when thus planted. Records show that Currants will yield, when planted in a field by themselves, 200 to 250 bushels per acre and the selling price is from \$4.00 to \$5.00 per bushel.

Ripe just before raspberries are gone, and continuing in prime order for several weeks. There is no more useful fruit than the currant, and it is among the easiest to cultivate.

Plant in rows four feet apart each way, if practicable. Light and air will do as much to enhance the value of currant bushes as with other plants. Keep the ground mellow, free from weeds, and in a good state of fertility, and prune freely every spring. Should the currant worm appear, dust a little white hellebore powder, from a small coarse bag, over the bushes when the leaves are damp. In some instances it may be necessary to repeat this process, but the trouble and expense of exterminating the worms is trifling, if the powder is applied as soon as the worms appear.

Black Champion—A new variety from England, pronounced to be the finest Black Currant ever brought to notice. The bushes are very large and the flavor of the fruit excellent.

Cherry (Red)—Very large; deep red; rather acid; bunches short. Plants erect, stout, vigorous and productive.

Fay's Prolific (Red)—Originated in Chautauqua Co., N. Y. A cross between Cherry and Victoria. Of large size, fine flavor, and claimed to be twice as prolific as the Cherry. Universally commended by those who have seen or had experience with it.

Lee's Prolific (Black)—A new English variety. The fruit is large and of superior quality; the bush is a vigorous grower and productive.

Perfection—Originated at Rochester, N. Y. A cross between Fay's Prolific and White Grape. Color, beautiful bright red; size as large or larger than the Fay, the clusters

averaging longer. The size of the berry is well maintained to the end of the bunch. Having a long stem from point of attachment to the bush to the first berry, makes it easy to pick without crushing any of the berries.

Victoria (Red)—A splendid variety, ripening two or three weeks later than the others, and continuing in fine condition for a long period. Bunches extremely long, berries of medium size, brilliant red and of the highest quality.

White Grape—Very large; yellowish white; sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Very distinct from White Dutch, having a low spreading habit, and dark green foliage. Very productive.



PERFECTION



SELECT GOOSEBERRIES

This fruit is so useful for cooking when green or ripe, and may be canned with such facility, that it is being cultivated very extensively for both home and market use.

It requires the same cultivation and treatment for worms as the currant.

The American varieties, though not quite so large as the English, are of fine quality, and, unlike the latter, are not subject to mildew.

American Varieties

Columbus—A new American seedling of English type; large size; skin greenish yellow, smooth and high quality; bush strong, robust grower, and has never shown a trace of mildew; it is believed to be the best American gooseberry yet introduced.

Downing—Large size, oval, greenish white; plant very vigorous and hardy, with stiff, strong shoots; foliage heavy, covering the fruit from the sun, and resisting mildew; bears most abundantly and is profitable for market and home use.

Golden Prolific—Originated by us; thrifty, productive and absolutely blight proof. Fruit large, brilliant yellow, and of good quality.

Red Jacket—A new red berry of large size and good quality; hardy and productive.

Smith's Improved—One of the largest American varieties of value; oval form; light

green when ripe; sweet and excellent; plant vigorous, healthy and hardy.

English Varieties

There are few of these that succeed here because of their liability to mildew. The following varieties are believed to be exempt from this drawback, and we therefore offer them, believing that they will meet every requirement.

Industry—Large; oval; dark red, hairy; rich and agreeable. Although this is a foreign variety it has succeeded admirably in this country. We can confidently recommend it, both for the garden of the amateur and the market plantation. The plant is remarkably vigorous and productive, and the fruit large, beautiful and of excellent quality. Where shoots are left long, they fruit to the very tips. We regard it as, on the whole, the best foreign gooseberry ever introduced.

Victoria—This new gooseberry is a wonder. It is the strongest grower, the greatest cropper, and finest flavored of red gooseberries. It is superior to Industry in its growth, yielding larger crops of its delicious, high flavored fruit, which is superb in quality—and ripens ahead of Industry. We bespeak for it a great success.

Whitesmith—Large, roundish oval; yellowish white, slightly downy; of first quality.

SELECT RASPBERRIES

Coming immediately after strawberries, when there is a dearth of other fresh fruits, raspberries are equally desirable for planting in the garden for home use, and in the field for market. They are easily cultivated. Beds seldom require renewing. Their season of ripening is long. The fruit bears transportation well, and aside from the demand for it for immediate consumption, it brings highly remunerative prices for drying and canning.

Plant in good soil, and manure from time to time freely. The hills should not be less than four feet apart each way, with two or three plants in a hill. Cut out the old and weak shoots each year, preserving not over six for fruiting. If the location is so much exposed that the plants are inclined to kill down seriously, they may be bent over in the fall, on mounds of earth formed at one side of the hills and covered sufficiently to keep them down until spring. Surplus suckers take strength from the bearing plants. They should be cut away or hoed up frequently.

Red and Yellow Varieties

Columbian—A vigorous grower; canes often ten to fifteen feet in length and over an inch in diameter. Never suckers from the roots. Very hardy, enduring 28 degrees below zero. Fruit very large, dark red, bordering on purple; adheres firmly. Rich, sprightly flavor; the best for canning and evaporating, and one of the most productive.

Cuthbert (Queen of the Market)—Large, conical; deep rich crimson; firm; of excellent quality. A vigorous grower, entirely hardy, and immensely productive.

Golden Queen—Rich golden yellow. The flavor is of the highest quality. In size equal to Cuthbert; immensely productive; a very strong grower and hardy enough even for extreme northern latitudes.

Marlboro—The best early red raspberry for the North, ripening soon after Hansell. Hardy and productive.



Select Raspberries—Continued

Black Caps

Black Diamond (Black)—A large, handsome berry, and on account of its great productiveness and splendid keeping and evaporating qualities, one of the most profitable to grow. Very sweet and excellent.

Cumberland (Black)—Bush perfectly hardy; very productive; fruit enormous; quality unsurpassed. The great firmness of the berry makes it a splendid shipper; ripens just before the Gregg. A great acquisition.

Gregg—Of great size; fine quality; very productive and hardy. It takes the same position among black caps as Cuthbert among the red sorts. No one can afford to be without it.

Kansas—Jet black, firm and delicious; as large or larger than Gregg; the hardiest black cap known, successfully withstanding the winters of Canada. A little later than Souhegan, and more prolific. One of the very best.

Ohio—A very strong growing hardy sort; fruit as large as Mammoth Cluster and more productive; valuable for market and much esteemed for drying.

SELECT BLACKBERRIES

This excellent and profitable fruit should be planted for garden use in rows five feet apart, with plants three feet apart in rows; for market, in rows six feet apart, with plants three feet apart in the rows. Give the plants the same cultivation as for raspberries. May be planted either Fall or Spring.

Agawam—Ripens earlier than other kinds, and has a flavor similar and equal to the wild berry. Perfectly hardy.

Ancient Briton—Medium sized, melting, without core. Bush hardy and very prolific. One of the very best old sorts, and still grown in immense quantities by successful market gardeners and orchardists.

Early Harvest—The earliest blackberry and consequently valuable for market. The canes are strong and upright in growth and enormously productive. Berries sweet and of the highest quality, though not as large as some others.

Eldorado—A new seedling from Ohio, claimed to be the best all-round berry yet produced, combining nearly all the good qualities found in a blackberry.

Erie—A variety from Northern Ohio; plant vigorous; berry large, round; good quality; early and productive. An excellent market sort.

Lawton—Very large, excellent quality, and an abundant bearer.

Lucretia (Dewberry)—A trailing form of the blackberry with large, beautiful, luscious fruit. It matures in advance of the ordinary varieties.

Rathbun—Origin, Western New York. Bush perfectly healthy, vigorous, but not a high growing sort; very rarely suckers from the roots but propagates itself from the tips like the black raspberry. Fruit of largest size, highest quality, borne in great profusion. Beyond question it is the very best blackberry.

Snyder—Extremely hardy; enormously productive; medium size; no hard sour core; half as many thorns as Lawton or Kittatinny.

Wilson's Early—Very large size, oblong oval, black, quite firm, rich, sweet and good. Ripens early and matures its fruit rapidly; retains its color well after picking.

SELECT MULBERRIES

The Mulberry is valuable both as an ornamental shade tree and for its fruit. It is of easy culture, requiring little or no pruning.

Downing's Everbearing—The beauty of this as a lawn or street tree is quite enough to commend it, but in addition it yields an abundant supply of its large refreshing berries for about three months. "I regard it as an indispensable addition to every fruit garden; I had rather have one tree of

Downing's Everbearing Mulberry than a bed of strawberries."—Henry Ward Beecher.

New American—A sport from Downing, and precisely like that well known sort, but decidedly hardier.

Russian—A hardy, rapid-growing tree, introduced from Russia by the Mennonites; foliage abundant; valuable for wind-break. Fruit of little value.



SELECT STRAWBERRIES

First of the small fruits comes the beautiful and wholesome Strawberry, and the profits resulting from its wise cultivation will satisfy any reasonable expectation.

Plant in April, May or October, in good soil deeply worked and well manured with muck, leaf mould, wood ashes or bone dust. Set fifteen inches apart in rows three feet apart for field culture, and fifteen inches each way for garden culture, leaving a pathway at every third row. Keep runners cut and cultivate clean. Mulch late in the fall and uncover early in spring, drawing about the plants to keep fruit from coming in contact with the ground.

Those marked (P) have pistillate flowers and must be planted near perfect flowering kinds.

Bubach (P)—Fruit uniformly large and handsome; conical, bright scarlet, moderately firm and of fair quality. Valuable for home use and near-by market. Season early to medium.

Chas. Downing—Fruit large, conical, regular. Scarlet, juicy, sweet and rich with more of the wild strawberry flavor and fragrance than any other sort. Valuable for home use.

Crescent (P)—Medium, uniform, conical; bright scarlet; ripens with Wilson but continues longer. Plants are wonderfully rank growers. Succeeds on all soils.

Cumberland—Very large, conical and uniform; handsome and showy. Color beautiful light

red. Moderately firm, pleasant, agreeable. Plant vigorous and productive. Splendid sort for home use or near-by market. Season medium.

Greenville (P)—Large size, good quality, and very productive. Medium to late. Plants vigorous and free from rust.

Haverland (P)—Large, long, bright red; a great yielder. One of the best of recent introduction.

Jessie—Large, handsome, roundish conical; firm; of good quality. Plant vigorous and productive. One of the best for home market. Season early to medium.

Parker Earle—A splendid new berry, originating in Texas. Berries uniformly large, regular, conical. Color glossy scarlet crimson, ripening to the tip. No hollow core. Quality good. Flowers perfect and always setting in perfect fruit. Plant extremely vigorous, healthy and enormously productive. It has yielded 15,000 quarts per acre, and is beyond doubt the most valuable variety in existence.

Sharpless—This grand old sort originated in Pennsylvania, and has been planted everywhere with very satisfactory results. Fruit large size, showy and good. Season medium.

Wilson's Albany—The old standard sort for preserving and canning. Vines subject to blight in some sections, otherwise a variety of great value.

SELECT ASPARAGUS

This earliest and finest of spring vegetables is among the easiest cultivated and most profitable. A bed once planted suffers no deterioration for thirty years or more, if it is properly attended to and well manured.

See that the ground is well drained, naturally or otherwise; work it up fine and deep and make it very rich with well rotted barnyard manure. Place the plants eight inches apart in rows three feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and, except near

the sea shore, three pounds of salt per square yard early every spring. Do not cut for use until the second season.

Barr's Mammoth—Originated in Pennsylvania. It is one of the earliest varieties, very productive and grows to a large size.

Conover's Colossal—This variety is much superior in size and quality to any of the old common sorts, being remarkably tender and fine flavored.

Palmetto—A very early variety of excellent quality, tender and of good flavor, very regular in size.

RHUBARB, OR PIE PLANT

This deserves to be ranked among the best early products of the garden. It affords the earliest material for fine pies and fresh table sauce, continues long in use, and is valuable for canning. Make the ground rich and deep, as recommended for Asparagus. Plant four feet apart each way.

Early Scarlet—Smaller than Myatt's, but extremely early and very highest quality. The best extra early sort for home or market.

Myatt's Linnaeus—This variety is of superior quality. It is early and tender, without being in the least tough or stringy, with a mild sub-acid flavor.



ORNAMENTAL DEPARTMENT

Brief Suggestions to Planters

What to Plant—Impressed with the importance of planting only the most hardy ornamental trees and shrubs, and in order that our patrons may be spared much disappointment and expense, we have, as far as possible, omitted from our catalogue everything that is liable to suffer from severe cold.

We have with great pains secured, both at home and abroad, all valuable hardy material, so as to render our assortment of this class as complete as possible. An examination of the catalogue shows what an extensive variety of stock is offered, enabling the planter by a judicious use of the same to accomplish any desired result with perfectly hardy trees, shrubs and plants.

For convenience we have grouped the trees under the following heads: Upright Deciduous, Weeping or Drooping Deciduous, and Evergreen. The shrubs have been similarly arranged, and parties desiring to make selections for particular purposes will find this classification useful.

For Parks and Extensive Grounds—No difficulty can be experienced by any one in making selections for this purpose. But we cannot impress too strongly the importance and value of flowering shrubs for effective masses and groups. There are many who imagine that the Rhododendron and Azalea are indispensable. This is a great error. In this latitude both Rhododendron and Azalea require prepared soil and protection, while hardy shrubs like the Weigela, Deutzia, Spiraea, Hardy Hydrangea, Japan Quince, Double-flowering Almond, Lilac, Snow-Ball, Althea, Paeony, Phlox and Japan Anemone, when planted in masses, produce a magnificent effect, need no protection, and demand little skill or care in their management. What grand masses of bloom can be had throughout the season by proper use of the various families! Then the purple and variegated-leaved trees and shrubs may also be planted in such a manner as to afford a rich and striking contrast.

Groups of flowering trees form superb objects at the blossoming season, and it is strange that planters do not employ them more.

Highly effective groups can be formed of trees and shrubs possessing bright-colored bark in winter.

For Lawns and Small Places—Whatever specimens are planted should be of the finest species, of moderate size, of graceful habits of growth and handsome foliage.

A pendulous tree or one with variegated foliage may be occasionally introduced, and will add to the beauty of the grounds. Depend mainly upon dwarf shrubs for small places, and in selecting, aim at securing a succession of bloom. Dwarf evergreens are very useful, and in small grounds hardy herbaceous border plants can be used with the most satisfactory results; a proper selection will afford as much bloom as ordinary bedding plants, and at half the trouble and expense.

When to Plant—Deciduous Trees, Shrubs and Vines can be planted either in spring or fall. Spring is the best time for evergreens generally.

How to Plant—Preparation of the Roots—Cut off smoothly all bruised or broken roots up to the sound wood. This prevents their decaying and hastens the emission of new roots and fibres.

Preparation of the Top—This consists of cutting back the top and side branches in such a way as to correspond with the more or less mutilated roots as follows:

Trees with branching heads, should have the small branches cut clean out, and the larger ones, intended for the framework of the tree, cut back till within two or three buds of their base.

In cases where there is abundant root, and small top or few branches, the pruning need be very light, but where the roots are small and the top heavy, severe pruning will be necessary. These remarks are applicable to all Deciduous Trees and Shrubs. Evergreens seldom require pruning, but Arbor Vitae and other Evergreens planted in hedge rows may be advantageously shorn immediately after planting.

Pruning, as practiced by some people, has the effect to render trees and shrubs unnatural and inelegant. We refer to the custom of shearing trees, particularly evergreens, into cones, pyramids and other unnatural shapes. Every tree, shrub and plant has a habit of growth peculiar to itself, and this very peculiarity is one of its beauties. If we prune all trees into regular shapes we destroy their identity. The pruning knife, therefore, should be used to assist nature, and handled with judgment and care, to lop off straggling branches, to thin the head of a tree which has become too dense, and to remove dead wood. Sometimes it becomes necessary to



prune severely to keep a tree from attaining too great size. Shearing may be practiced on hedges, but never on trees or shrubs.

Pruning Shrubs—Many persons trim and shear them into regular shapes, imagining that regular outline adds to their effect and beauty. While symmetry and regularity of form are to be admired in a shrub, this quality should never be gained at the expense of health and natural grace.

Each shrub has peculiarities of habit and foliage, and we should aim to preserve them as far as possible. Judicious pruning to secure health and vigor is necessary, but trimming all kinds of shrubs into one form shows a lack of appreciation for natural beauty, to say the least. Weigelas, Deutzias, Forsythias and Mock Orange flower on the wood of the preceding year's growth, hence these shrubs should not be pruned in winter or spring, but in June, after they have finished flowering, when the

old wood should be shortened or cut out, thus promoting the growth of the young wood which is to flower the following season.

Spireas, Lilacs, Altheas, and Honeysuckles may be trimmed during the winter or early in the spring, but the branches should only be reduced enough to keep them in good shape. The old growth should be occasionally thinned out and the suckers and root sprouts removed when they appear. The best time, however, for pruning all shrubs, is when they have done flowering. The *Hydrangea Paniculata Grandiflora* should be severely cut back and thinned early in spring.

Pruning Evergreens—Use the knife occasionally to thicken the growth and preserve the shape. This can be done in April or May, just before the trees start to grow.

The weeping or drooping varieties will be found further on under heading "Weeping or Drooping Deciduous Trees."

UPRIGHT DECIDUOUS TREES

ALDER (*Ainus*).

The cut-leaved varieties are among the finest ornamental trees, and are rapid and robust growers.

European, or Common (*Glutinosa*)—Rapid growing; when matured thirty to sixty feet high; specially adapted to moist situations.

Imperial Cut-Leaved (*Laciniata Imperialis*)—A very striking and beautiful tree, with delicately and deeply cut foliage; hardy, and of vigorous growth, forming an open and handsomely shaped head, fifteen to twenty feet high when fully grown. One of the finest cut-leaved trees in cultivation.

ALMOND (*Amygdalus*).

Hard Shell—A fine, hardy variety with large, plump kernel, and exceedingly ornamental when in bloom.

Soft Shell—This is the Almond of the shops, and though preferable to the former is not so hardy; kernel sweet and rich.

ASH (*Fraxinus*).

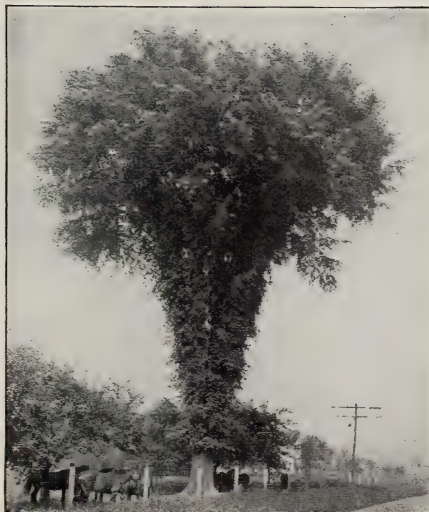
This family comprises many varieties of great value.

American Black (*Sambucifolia*)—A small medium-sized tree, with fine foliage.

American White (*Americana*)—Our own noble native ash.

Cut-Leaved (*Laciniata*)—A rare and elegant lawn tree.

European Flowering (*Ornus*)—Flowers greenish white, fringe-like, produced in June; grows from twenty to thirty feet.



AMERICAN ELM

(See Page 27)

BEECH (*Fagus*).

Cut-Leaved (*Incisa*)—A fine erect tree, with deeply incised foliage; a variety of rare beauty and excellence.

Fern-Leaved (*Heterophylla*)—An elegant tree of symmetrical habit, having beautifully cut, fern-like foliage, and a graceful, wavy aspect. When fully grown, twenty-five to thirty-five feet high.



Beech—Continued

Purple-Leaved (*Purpurea*)—A remarkable variety, with very dark purplish foliage, changing to crimson, and again in the fall to dark purplish green, making a striking contrast with the green of other trees. Highly ornamental and desirable. When fully grown, forty to fifty feet high.

CATALPA (Indian Bean).

A valuable class with ornamental foliage and flowers and of easy culture on common soils. Leaves of immense size and heart-shaped. Flowers borne in large upright panicles. Flowers in July when few trees are in bloom. Valuable for lawn, street or park planting, and are of rapid growth.



CATALPA SPECIOSA

Riversii (Rivers' Smooth-leaved Purple)—This variety, which we procured of Mr. Rivers, differs from the ordinary purple-leaved beech by its compact symmetrical habit of growth, and crimson foliage early in the spring, changing to a dark purple in summer. The finest of all purple-leaved trees.

Tri-Color—A new novelty of merit; a seedling of Purple Beech, the major portion of the leaf being purple shading to a beautiful crimson with a silvery margin.

BIRCH (*Betula*).

Birch, Cut-Leaved Weeping—See Weeping Trees.

European, or Common White (*Alba*)—A well-known variety, making a vigorous, erect growth, and having long, slender branches. Very desirable.

Young's Weeping—See Weeping Trees.

Bungei (Umbrella Catalpa)—Grafted on stems six to eight feet high, it makes an umbrella-shaped top without pruning. Perfectly hardy, and flourishes in almost all soils and climates. Leaves large, glossy, heart-shaped, deep green; lay like shingles on a roof; always make a symmetrical head. One of the most unique trees; a valuable acquisition, desirable for lawn, park and cemetery planting.

Speciosa—This early-blooming, upright variety is much harder than the syringa-leaved, having proved itself able to stand the severe winters of Wisconsin and Iowa, making when planted in groves, straight, symmetrical trees, suitable for posts or railway ties, for which purposes it is one of the most useful trees known, lasting in many instances nearly or quite a century.



Catalpa—Continued

Teas' Japan Hybrid—Large, luxuriant foliage, handsome white flowers, with purple dots and a touch of yellow around the throat, which have a pleasant, delicate fragrance; and a tree in bloom not only presents a magnificent spectacle to the eye, but also fills the air for quite a distance with its agreeable odors. In rapidity of growth it rivals the most luxuriant trees of temperate climates, while its hardness has been demonstrated by its standing uninjured 25 degrees or more below zero.

CHERRY (Cerasus).

Double Flowering (Flore alba plena)—A tree of medium growth, producing clusters of double white flowers in May. Blooms so profusely as to completely hide the branches from view.

Japan Weeping—See Weeping Trees.

CHESTNUT (Castanea).

American—A well known forest and nut-bearing tree; of great value for ornamental purposes.

Spanish—A valuable species for both ornament and fruit. It forms a handsome lawn tree, and produces fruit three or four times as large as the American variety. Not hardy at the North.

CRAB (Pyrus).

Bechtel's Double-Flowered, American—One of the most beautiful of the many fine varieties of flowering Crabs. Tree of medium size, covered in early spring with large, beautiful, double, fragrant flowers of a delicate pink color. From a distance the flowers have the appearance of small Roses. Blooms when quite young.

Chinese Double Rose-Flowered—Has beautiful double, rose-colored, fragrant flowers nearly two inches in diameter in May. Should be in every collection.

Chinese Double White-Flowered—Produces double white fragrant flowers in clusters.

DOGWOOD (Cornus).

Red Flowering (Flore rubra)—A valuable variety producing beautiful carmine flowers; of great value.

White Flowering (Florida)—A fine American tree, growing from sixteen to twenty-five feet high. Foliage of a grayish green color; very glossy and handsome, turning in the autumn to a deep red, rendering the tree one of the most beautiful objects at that season. The flowers appear before the leaves in the spring and are about three inches in diameter; white and very showy. It is one of the most valuable ornamental trees.

ELM (Ulmus).

American White (Americana)—A native tree of large size, with open, spreading head and graceful drooping branches. Very popular in nearly all sections, and valuable for street planting. Succeeds admirably even where the soil is somewhat heavy and damp.

Camperdown—See Weeping Trees.

English (Campestris)—A native of Europe, forming a tall, erect tree, with slender branches and small leaves. When fully grown, forty to fifty feet high.

Huntingdon (Huntingdoni)—One of the most desirable elms for any purpose; of very erect habit and a rapid, vigorous grower. Bark clean and smooth. When fully grown, forty to fifty feet high.

Purple-Leaved (Purpurea)—A beautiful and distinct variety; leaves of rich purple when young. When fully grown, fifteen to twenty-five feet high.

Scotch (Montana)—A fine spreading tree, of rapid growth and large foliage. When fully grown, forty to fifty feet high.

FILBERT (Corylus).

American—Smaller and with a thicker shell than the English, but of good flavor.

English—The fruit of this being so much larger and better flavored than our native species, gives it the preference for cultivation over the latter in localities where it will succeed.

HORSE CHESTNUT (Aesculus).

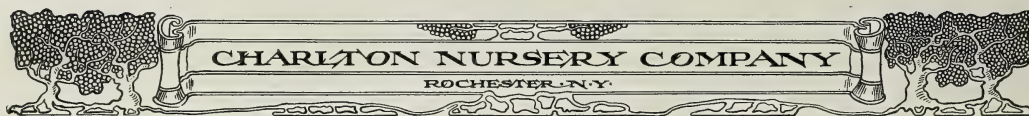
Red Flowered—One of the finest trees in cultivation. Has showy, red flowers; blooms a little later than the white.

White Flowered—The common, well-known species; a hardy, healthy tree, free from all diseases; covered in May and June with magnificent, erect spikes or panicles of white flowers, slightly marked with red.

JUDAS TREE, OR RED BUD (Cercis).

American Judas—A very ornamental native tree, of medium size, irregular rounded form, with perfect heart-shaped leaves of a pure green color, glossy surface above and grayish green beneath. The tree derives the name of Red Bud from the profusion of delicate reddish purple flowers with which it is covered before the foliage appears. Flowering at the same time with the Chinese Magnolias, it may be planted among them in groups with fine effect. Grown as single specimens they are also beautiful and attractive, and deserve to be classed among our finest ornamental trees.

Japan Judas—Of medium size, rounded form, foliage deep shining green and heart-shaped; flowers larger than those of American, and of a rich reddish purple color.



LABURNUM (*Cytisus*).

Alpine, or Scotch (*Alpinus*)—A valuable variety, producing long clusters of yellow blossoms.

Common, or Golden Chain—Bears long, pendent racemes of golden flowers in June; smooth and shiny foliage. Very showy and beautiful, and valuable for every lawn. When fully grown, fifteen to twenty feet high.

LARCH (*Larix*).

European (*Europaea*)—A beautiful, rapid-growing tree, of irregular, pyramidal form, with small drooping branches. Very desirable and universally sought in all sections.

LINDEN, OR LIME (*Tilia*).

American, or Basswood (*Americana*)—Rapid-growing, open-head or spreading tree, with large leaves and fragrant flowers. Very desirable on account of its fine luxuriant foliage. When fully grown, forty to sixty feet.

European (*Europaea*)—A very fine pyramidal tree, with large leaves and fragrant flowers; smaller in all parts than the preceding, and more valuable for street or lawn planting. When fully grown, thirty to fifty feet.

European White-Leaved (*Alba*)—A vigorous growing tree, with large, handsome foliage, quite downy and whitish underneath; smooth above; very valuable. When fully grown, twenty to twenty-five feet.

MAGNOLIA (*Magnolia*).

Very beautiful, but exceedingly difficult to transplant with success.

Acuminata (*Cucumber Tree*)—A magnificent tree, growing very rapidly, and often attaining from sixty to ninety feet in height, producing in June greenish yellow flowers. Very desirable on account of its fine, luxuriant foliage, rapid growth, and fine flowers.

Lenne (*Lennei*)—A very showy flower; cup-shaped; crimson purple outside and pearl colored within. One of the finest of the purple magnolias.

Soulangeana—Shrubby and branching while young, but becoming a fair-sized tree. Flowers white and purple, cup-shaped, and three to five inches in diameter. Foliage large, glossy, and massive. One of the hardiest and finest of the foreign magnolias.

Speciosa—Flowers a little smaller than *Soulange*; bloom a week later and remain longer on the tree than any other variety; hardy and valuable.

Stellata (*Halleana*)—From Japan, of dwarfish habit, producing its pure white; semi-double fragrant flowers in April, earlier than other *Magnolia*.



MAGNOLIA SOULANGEANA

MAPLE (*Acer*).

Ash-Leaved, or Box Elder (*Negundo*)—A native tree, maple-like in its seeds and ash-like in foliage; of irregular spreading habit.

European Sycamore—A handsome tree, of rapid, upright growth, with large foliage, and smooth, ash-gray colored bark.

Japan Blood-Leaved—Of dwarf habit and rounded form; foliage five-lobed and serrated; reddish crimson in June, changing to dark purple which it retains all summer.

Japan Cut-Leaved Purple—One of the most striking and handsome varieties of the Japanese Maples. Form dwarf and weeping. The leaves are of a beautiful rose-color when young and change to a deep and constant purple as they become older.

Norway—Large, handsome, with broad, deep green, shining foliage.

Purple-Leaved Sycamore—A tree of fine, robust habit. Foliage deep green on the upper surface and purplish-red underneath.

Red or Scarlet—A native species of medium size and rounded head; produces deep red blossoms which appear before the leaves. In autumn the foliage changes to a brilliant scarlet.



Maple—Continued

Schwedler's Norway—A beautiful variety, with the young shoots and leaves of a bright purplish and crimson color, which change to a purplish green in the older leaves.

Silver-Leaved, or Soft—A well known native tree of rapid growth, large size, and irregular rounded form; foliage bright green above and silvery white beneath; tree very hardy and easily transplanted. One of the most useful trees.

Sugar, or Rock—Of stately growth, fine form and foliage; very desirable as an ornamental and shade tree.

Wier's Cut-Leaved Silver—This is one of the most remarkable and beautiful trees with cut or dissected foliage yet offered. Its growth is rapid, shoots slender and drooping, giving it a habit almost as graceful as the Cut-Leaved Birch. The foliage is abundant, silvery underneath, and on the young wood especially, deeply and delicately cut.

Worle's Golden-Leaved Sycamore—In the spring the foliage is of a golden yellow color, changing to a duller shade as the season advances. The young growth continues brilliant throughout the summer. A valuable and effective variety for grouping with purple-leaved trees.

MOUNTAIN ASH (*Pyrus Sorbus*).

Very ornamental, especially when covered with bright scarlet berries.

American (*Americana*)—A favorite, erect-growing tree, of medium size, producing white flowers early in spring, followed by clusters of bright scarlet berries which remain on the tree through the winter months.

European (*Aucuparia*)—Similar in appearance to the above, with finer foliage, and smaller, deeper-colored berries; much more desirable than the American, and everywhere very popular. When fully grown, twenty to thirty-five feet.

Oak-Leaved (*Quercifolia*)—A very distinct and desirable tree, with compact, pyramidal head and dark-lobed leaves, downy underneath; producing the same flowers and berries as the preceding. Very hardy and desirable for planting on lawns or in door-yards. When fully grown, twenty to twenty-five feet.

MULBERRY.

See Mulberries, page 22.

OAK (*Quercus*).

American Red (*Rubra*)—Very large in stature and leaf, and unusually quick in growth. The young shoots and leaf-stems are red,

the foliage purplish crimson in autumn. Four to five feet.

American White (*Alba*)—One of the finest American trees; of large size, and spreading branches; leaves lobed, pale green above and glaucous beneath.

Pin (*Palustris*)—This is considered the most beautiful of all the Oaks, and is certainly the most popular for street and park planting. As the tree grows the branches droop until the lower ones touch the ground, giving it a peculiarly beautiful ovate outline.

Scarlet (*Coccinea*)—A native tree of rapid growth, pyramidal outline, and especially remarkable in autumn, when the foliage changes to a bright scarlet.

PEACH (*Persica*).

Purple, or Blood-Leaved (*Vulgaris foliis purpureis*)—Valuable on account of its handsome foliage.

Rose-Flowering, Double (*Rosea fl. pl.*)—A small sized tree, with beautiful delicate rose-colored flowers. Blooms in May. When fully grown, eight to ten feet.

White-Flowering, Double (*Alba fl. pl.*)—Similar to the preceding, with white flowers. Blooms in May. When fully grown, eight to ten feet.



MAPLE, SCHWEDLER'S



THORN, PAUL'S DOUBLE SCARLET

PECAN.

Pecan—This is a native nut belonging to the (Carya) Hickory-nut family. The tree is of tall growth, and bears abundantly; not entirely hardy at the North, but should be planted wherever it will succeed. The shell is very thin, the kernel sweet and delicious.

PLANE TREE (Platanus).

American (Occidentalis)—Also known as Sycamore or Buttonwood, a well-known tree, leaves heart shape at base with short lobes, sharp pointed.

Oriental Plane (Orientalis)—Leaves heart shape at base, deeply cut. Is among our tallest trees, growing rapidly into massive proportions. Hardy and free from disease. It does well in cities and near the seashore, and is not affected by insects.

POPLAR (Populus).

Desirable where rapid growth is wanted.

Balsam—Large, glossy leaves; tree grows rapidly.

Bolleana (Silver-Leaved)—A tree of wonderfully rapid growth and upright habit; leaves large, dark rich green above, and white as snow beneath. When fully grown, forty feet.

Carolina—A remarkably rapid, luxuriant grower; leaves large, glossy, pale to deep green. Valuable as a street or shade tree when shade is desired quickly. It will also be found useful for planting as a screen to hide unsightly buildings, etc.

Lombardy—Well known for its erect, rapid growth and commanding form. Very desirable in large grounds or along roads, to break the average height and forms of other trees. When fully grown, fifty to seventy-five feet.

SALISBURIA, MAIDEN-HAIR TREE, OR GINKGO.

Adiantifolia—A rare, beautiful tree from Japan, with remarkable fern-like foliage, distinct and fine. Especially desirable for planting on lawns or in dooryards. A rapid grower.

SWEET GUM, OR BILSTED (Liquidambar).

One of the finest American trees. Of medium size and moderate growth; form round-headed or tapering; leaves resemble somewhat those of the maple, but are star-shaped and of a beautiful glossy green color in summer, turning to a deep purplish crimson in autumn; bark corky. Beautiful in all stages of growth, it is particularly handsome and striking in autumn.

THORN (Crataegus).

The thorns justly deserve to be classed among the most beautiful flowering trees. They are generally dense, low growers, occupying comparatively little space, and well adapted to beautify small grounds. They flower in May and June.

Double Red—Bright double red flowers.

Double White—Has small double white flowers.

Paul's Double Scarlet—Flowers bright carmine red.

TULIP TREE, OR WHITE WOOD (Liriodendron).

Tulipifera—One of our largest native trees, with large, glossy leaves, shaped like a violin, and beautiful tulip-like flowers. Very desirable for planting on lawns, or where trees are desired for rapid growth. When fully grown, fifty feet.

VIRGILIA LUTEA (Cladrastis).

Yellow Wood—One of the finest native trees. Flowers very fragrant, pure white, and produced in long drooping racemes in June.

WALNUT (Juglans).

Black—The well known native species; hardy, prolific and valuable; timber in point of durability is difficult to excel.

Butternut—A rapid growing native tree, producing edible nuts.



Walnut—Continued

English (Madeira Nut)—This rich and fine flavored nut is moderately hardy, and makes a vigorous growth.

Japan—Perfectly hardy, rapid grower, handsome form, large leaves; bears young and abundantly; one of the finest ornamental trees. Nuts produced in clusters; resembles Butternut in shape and quality; smaller, with smooth and thinner shell.

WILLOW (Salix).

Golden (*Vitellina aurantiaca*)—Very conspicuous on account of its yellow bark.

Kilmarnock—See Weeping Trees.

Laurel-Leaved (*Laurifolia*)—A fine tree, with large shiny leaves.

New American—See Weeping Trees.

Rosemary-Leaved (*Rosmarinifolia*)—Branches feathery, with small, silvery foliage; makes a striking, pretty, small-sized tree when grafted standard high. This, the Kilmarnock and the New American Weeping, should always find a place in every yard and garden, and will produce a pleasing effect. When fully grown, ten feet.

WEEPING, OR DROOPING DECIDUOUS TREES

Much attention is now given to this interesting class of trees, and we therefore place them separately for the greater convenience of our friends. For the benefit of those unacquainted with their habits, we would say that they should be divided into two separate classes, namely: those which are grafted where the top or head commences to form, as in the case of the Kilmarnock Willow, and those having long, slender branches which droop naturally, like the Cut-leaved Birch; the first assumes that conspicuous, umbrella-like form so well known, and so excellently adapted for planting in cemeteries, small yards and gardens. The latter have tall-growing trunks, with long slender branches, and are really handsome. They are adapted for larger places, where they can have sufficient room. In such situations, the elegance and grace of their branches in motion, or at rest, are so graceful to the eye that among ornamental shrubbery they have few if any superiors.

BEECH (Fagus).

Weeping (*Sylvatica pendula*)—A remarkably vigorous, picturesque tree of large size. Its mode of growth is extremely curious. The trunk or stem is generally straight, with the branches tortuous and spreading; quite ungainly in appearance divested of their leaves, but when covered with rich luxuriant foliage, of wonderful grace and beauty.

BIRCH (Betula).

Cut-Leaved Weeping—Beyond question one of the most popular of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping branches, silvery-white bark, and delicately cut foliage, present a combination of attractive characteristics rarely met with in a single tree.

Young's Weeping (*Pendula Youngii*)—Originated near Milford, Eng., where it was found trailing upon the ground. Grafted into stems of some height, it forms pendulous heads, drooping to the ground in fine, thread-like shoots; very beautiful.

CHERRY (Cerasus).

Japan Weeping, Rose-Flowered—One of the finest pendulous trees for lawns or small grounds. The branches are slender, and fall gracefully to the ground, and the flowers are rose-colored, appearing before the leaves. Undoubtedly one of the finest weeping trees.

Japan Weeping, White—Feathery and graceful; flowers single white; fruit red. One of the finest of the small-headed pendent cherries.

ELM (Ulmus).

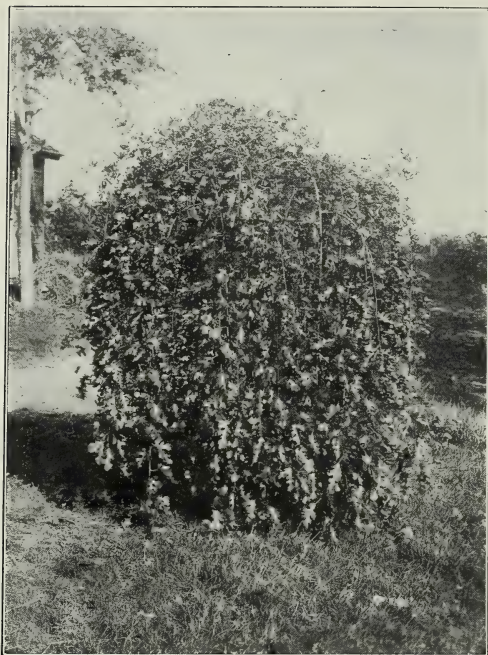
Camperdown (*Pendula*)—Grafted six to eight feet high, this forms one of the most picturesque drooping trees. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree with a luxuriant mass of verdure.

LINDEN (Tilia).

White-Leaved Weeping (*Alba pendula*)—A very beautiful tree having large foliage, silvery-white underneath, and slender, drooping branches.

MOUNTAIN ASH (Pyrus Sorbus).

Weeping (*Aucuparia pendula*)—The branches of this distinct variety are of a straggling, pendent character, turning and twisting in all directions and producing a very pleasing effect. Covered during the autumn with bright red berries.



MULBERRY, TEAS' WEeping

MULBERRY (*Morus*).

Teas' Weeping—The most graceful and hardy Weeping tree in existence. Wholly unlike anything heretofore introduced. Forms

perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground. All who have seen it agree that in light, airy gracefulness, delicacy of form and motion, it is without a rival. It will undoubtedly take foremost place among weeping trees; it has beautiful foliage; is wonderfully vigorous and healthy; is one of the hardiest, enduring the cold of the North and heat of the South; safe and easy to transplant. Admirably adapted for ornamenting small or large grounds, or for cemetery planting. Trees are five to six feet high.

WILLOW (*Salix*).

Babylonica—Our common well known weeping variety; forms a large, round-headed, graceful tree; requires plenty of room, and where space can be spared, is quite desirable.

Kilmarnock (*Caprea pendula*)—A distinct variety, having reddish shoots and large, glossy foliage; grafted at a proper height, about five feet from the ground, it makes a very desirable small lawn tree, having a perfect umbrella-shaped head, with the branches drooping gracefully to the ground. It is well suited for planting in cemetery lots or small enclosures. Extensively planted, and should be in every collection of ornamental shrubbery. Hardy and of vigorous growth.

New American (*Purpurea pendula*)—An American dwarf variety, which when grafted on a standard stem, five or six feet high, makes one of the most ornamental of small weeping trees, having long, slender shoots and delicate leaves of great beauty and very graceful.

EVERGREENS

Desirable in all ornamental planting, as they retain their foliage through the winter, adding a tone of warmth and verdure, and importing a charm to the landscape that deciduous trees are incapable of. They should be judiciously planted on small as well as on large grounds. On the latter the larger kinds can thrive at full development, and should be planted at distances sufficient to allow of their natural and symmetrical growth without crowding. The Arbor Vitas, Junipers, Dwarf Pines and Retinosporas, on account of their small size are most suitable for small lots; but nearly all species and varieties look well on small grounds while the trees are young.

Evergreens can be most successfully transplanted a short time before they are ready to start into growth, in the spring. The roots

must not be exposed to wind or sun. The soil to receive them should be made mellow and fine, and great care taken that it is well packed about the roots after they have been well spread out in their natural position.

For shelter and screens to break the wind; for concealing unsightly objects; for division lines or ornamental fence; for border to vegetable, flower gardens, etc., the different varieties are well adapted.

Our trees are all nursery grown, bushy stock with good roots.

In the following list we confine ourselves strictly to perfectly hardy species and varieties, such as are most useful for general planting. In transplanting Evergreens so much depends on the care of the planter in protecting roots from air and sun, that we cannot guarantee



them further than that delivery shall be made in first-class condition. We recommend spring planting for Evergreens.

ARBOR VITAE (Thuja).

American (*Occidentalis*)—A well-known variety of great value; it forms an upright conical tree of only medium size and is, all things considered, the finest Evergreen for screens, being hardy and more easily transplanted. It grows rapidly, and with little care; or rather, by easy management, it soon forms a most beautiful hedge, very dense, and perfectly impervious to the sight. It is not adapted to turn stock, but forms a most desirable and ornamental screen to divide the lawn from other parts of the ground, or for any similar purpose.

Globosa—A popular Dwarf Evergreen, compact, globular in form, foliage an attractive shade of green, needs no clipping, very distinct and desirable.

Hovey's Golden (*Hoveyi*)—A hardy variety of rich golden shading.

Pyramidal (*Pyramidalis*)—Of upright, compact habit, resembling Irish Juniper.

Siberian (*Siberica*)—Well known and deservedly popular on account of its hardiness, being able to endure the changes of our climate, and as it retains its dark green color, it is an excellent lawn tree, and of great value for ornamental screens and hedges.

Tom Thumb—Remarkable for its low, compact habit; valuable for planting in cemeteries and small places where large trees are not admissible.

FIR (*Picea*).

Balsam (*Balsamea*)—A well known and popular tree; very handsome while young, assuming the upright or conical form; leaves dark green above, silvery beneath; retains its color throughout the severest winters; grows rapidly, and every way desirable.

Concolor (*Silver Fir of Colorado*)—Without doubt the finest of the Rocky Mountain evergreens. Tree of graceful habit; broad, handsome foliage, bluish above, silvery beneath. A grand tree, very distinct and exceedingly rare as yet.

Nordmann's—A noble fir of majestic and symmetrical form, found on the Crimean Mountains. Hardy; one of the best evergreens.

JUNIPERS (*Juniperus*).

Irish—A very pretty little tree or shrub, forming a neat, tapering column of deep foliage; very hardy and desirable for planting on lawns, or in cemetery lots, where larger evergreens are not admissible.

Red Cedar—A well known American tree; varies much in habit and color of foliage.



RETINOSPORA FILIFERA

(See Page 34)

PINE (Pinus).

Austrian, or Black—From Central Europe, where it grows over one hundred feet high; remarkably robust, with long, stiff leaves and deep green foliage; hardy everywhere, and valuable for planting as wind-breaks, screens, etc.

Dwarf Mugho—An upright, small pine; found on the Pyrenees and Alps. Its general form is that of a pine bush, but it has been found growing as high as forty feet.

Scotch—A native of the British Isles. A fine, robust, rapid-growing tree, with stout, erect shoots, and silvery green foliage. Very hardy; valuable for shelter.

White—The most ornamental of all our native pines; foliage light, delicate or silvery green. Flourishes in the poorest light sandy soil. Very valuable.

RETINOSPORA, OR JAPAN CYPRESS.

A genus very similar to Cupressus. It comprises many sorts of wonderful beauty. They are natives of Japan and very few will endure the rigor of our winters without protection. Whenever they can be preserved they will amply repay the efforts made. The small varieties are exceedingly desirable for in-door culture in pots.

Filifera—Thin-branched Japan Cypress. A low tree with irregular outline and very elegant appearance. Its long drooping foliage and pretty form are very pleasing.

Filifera Aurea—A highly ornamental form of the above with golden foliage. Growth somewhat dwarfish.

Obtusa Compacta (Obtuse-leaved)—A beautiful variety, with glossy green leaves, silvery-white underneath; hardy.

Pisifera (Pea Fruited)—An erect, slender growing tree, from Japan, graceful and handsome; resembling the Cypress in foliage; perfectly hardy.

Pisifera Aurea (Golden)—In this variety the tips of the branches are of a bright golden hue, very marked and pretty.

Plumosa—A variety with fine short branches and small leaves. The soft plume-like appearance of the foliage gives it its name.

Plumosa Aurea—One of the most striking and desirable little plants of recent introduction; habit of growth compact, with branches and leaves of beautiful golden yellow.

Squarrosa—Has a soft steel color foliage which is very attractive. Will stand pruning and can be kept to any growth.

Squarrosa Veitchii—Acknowledged one of the best lawn trees in existence. Of low dense

growth. Foliage of a light glaucous green with a tint of silvery white, giving the plant a very soft and beautiful silvery appearance.

SPRUCE (Abies).

Koster's Blue—A dense growing, symmetrically pyramidal tree, with stiff, pointed foliage, of a beautiful blue. Extremely handsome and very effective. As a specimen or for growing with other Evergreens it is unsurpassed.

Douglass (Douglassi)—Conical form, branches spreading. A very desirable variety.



HEMLOCK SPRUCE

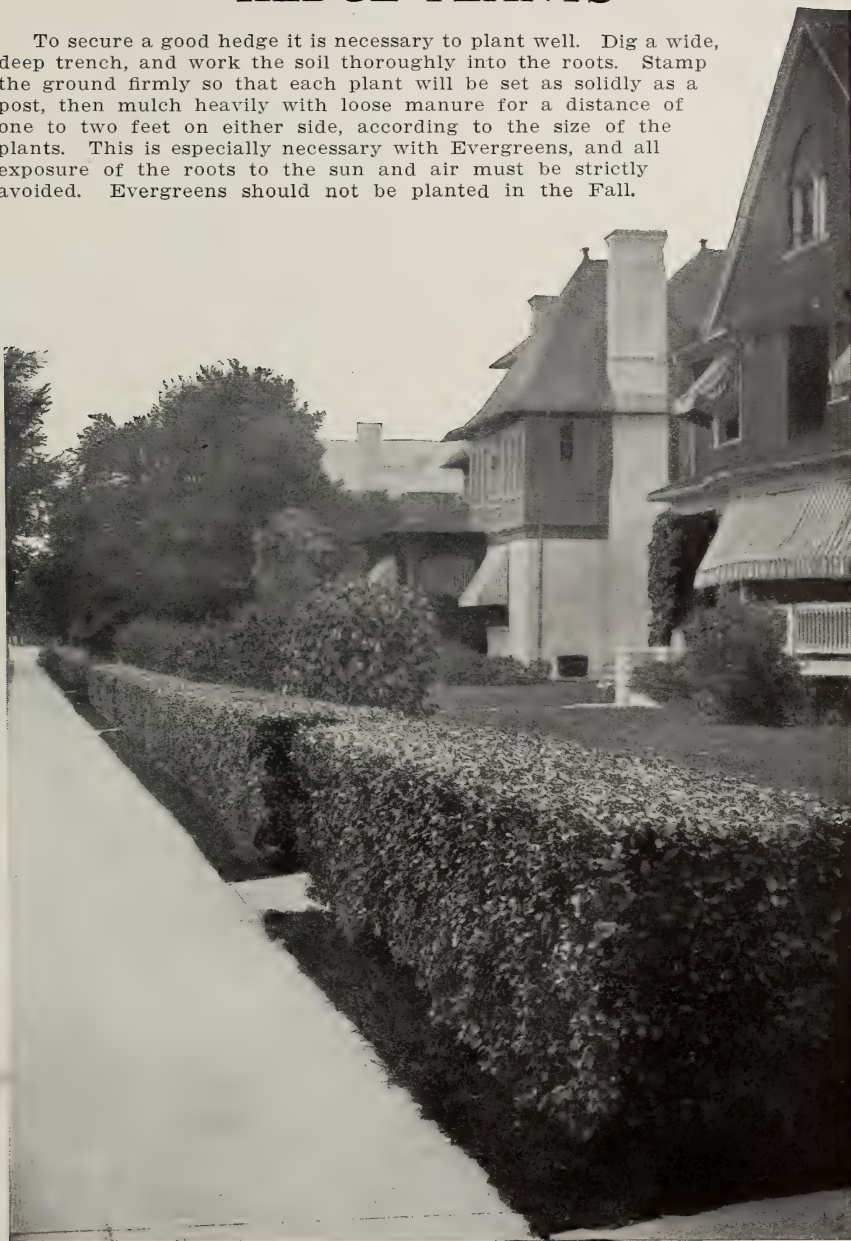
Hemlock (Canadensis)—An elegant tree with drooping branches and fine yew-like foliage; perfectly hardy and quite distinct; of undoubted worth and beauty. Makes a fine ornamental hedge.

Norway (Excelsa)—Of very rapid growth and gracefully drooping habit when of some size; dense in structure, regular in outline, and perfectly hardy; will bear shearing or cutting well, and hence is well adapted for planting in hedges or screens. Very popular, and deservedly so, and is largely planted.

Weeping (Inverta)—A beautiful variety, somewhat resembling the Norway, except that its branches are pendulous. The lateral branches of large trees are as drooping as the Willow.

HEDGE PLANTS

To secure a good hedge it is necessary to plant well. Dig a wide, deep trench, and work the soil thoroughly into the roots. Stamp the ground firmly so that each plant will be set as solidly as a post, then mulch heavily with loose manure for a distance of one to two feet on either side, according to the size of the plants. This is especially necessary with Evergreens, and all exposure of the roots to the sun and air must be strictly avoided. Evergreens should not be planted in the Fall.



CALIFORNIA PRIVET



DECIDUOUS HEDGE PLANTS

HONEY LOCUST.

Very hardy and the cheapest and the best for defensive hedges; also very ornamental.

JAPAN QUINCE.

Unquestionably the finest of all plants for an ornamental hedge. Grows very compact; will submit to any amount of pruning, while the brilliant and showy scarlet flowers make it very attractive.

OSAGE ORANGE.

Highly esteemed at the West and South. Not hardy enough for the Northern States.

PRIVET (*Ligustrum*).

Amoor (*Amurense*)—Considered more hardy than the Calif. Privet, makes a good hedge and is desirable, as light green leaves are half-evergreen.

California (*Ovalifolium*)—This is the most glossy-leaved and rapid growing of all the half-evergreen plants used for low hedges around private lawns, and is the universal

favorite at Newport and other fashionable seaside resorts.

Ibota—Arching habit, narrow leaves and fragrant flower-clusters. This is believed to be the most hardy variety that can be grown throughout New York State.

The following are also very desirable for ornamental hedging, description of which will be found under the proper headings in this catalogue:

Altheas,	Hydrangea Paniculata,
Barberry	Roses,
Honeysuckle Tartarian,	Spiraeas.

EVERGREEN HEDGE PLANTS.

All described in their appropriate places in this catalogue.

Arbor Vitae, American,
Arbor Vitae, Siberian,
Box, Dwarf, for Edging.
Hemlock Spruce,
Norway Spruce (especially adapted for wind-breaks).

FLOWERING SHRUBS

We would urge the more extended use of shrubs for large and small grounds, combining, as they do, so wide a range of foliage and flower, habit of growth and season of bloom; and as they require small space for perfect development, the monotony of entirely blank lawns of even small size can be most advantageously broken and the ornamental effect highly increased by a judicious selection and arrangement into single specimen plants, small groups or masses, in proportion to the size of the grounds.

Our Shrubs are all strong, well-rooted, transplanted stock from open ground. Once carefully planted in suitable positions they increase in size and beauty from year to year, and require but little further care. The time of bloom of the different sorts extends over nearly the whole season, though the greatest show is to be expected in spring and early summer.

We can supply many Flowering Shrubs in addition to those described, but confine ourselves to those having the greatest merit, and especially to such as possess some distinct qualities, either of foliage or of flower.

Should any of our professional patrons desire to experiment on their testing grounds with varieties not named herein, we shall be pleased to fill such orders. But to the general planter we advise a selection from the following choice list:

ALMOND (*Amygdalus*).

Dwarf, Double Red-Flowered—A beautiful small shrub, bearing an abundance of small double rose-like flowers, in May, closely set upon twigs before the leaves appear.

Dwarf, Double White-Flowered—Produces beautiful double white flowers in May.

ALTHEA (*Hibiscus*).

One of the most showy and beautiful flowering shrubs. The flowers are of large size, very double and full, and of various brilliant and striking colors. It blooms freely during August and September when scarcely any other tree or shrub is in blossom.

Double Pink. Double Purple. Double Red.

Double Rosea—Pink and white.

Double White—White with crimson center.

Variegated-Leaved Double Purple-Flowered (*Flore pleno fol. var.*)—A conspicuous variety with leaves distinctly marked with light yellow, and having double purple flowers; showy and desirable.

ALTHEA, TREE FORM.

The Althea, as a shrub, is fine and attractive, but grown in tree form becomes doubly beautiful and interesting. It is hardy and of easy cultivation. Colors same as preceding.

ARALIA—ANGELICA TREE.

Japonica—A handsome and distinct shrub, from Japan, with large tripinnate leaves and spiny stems; flowers white, in large spikes in September.



DEUTZIA LEMOINE

(See Page 38)

AZALEA.

Amoena—A bushy dwarf shrub with small green leaves that deepen to a lustrous copper hue in winter. It is attractive at all seasons, but in April and May the whole plant is clothed with a mass of brilliant claret-colored flowers which hold their beauty three or four weeks. Desirable for edging drives and walks, for dwarf hedges, groups or for bordering rhododendron and kalmia beds.

Ghent—This class is hardy and will thrive in any good, rich garden soil, but will do best in a light, moist soil, in which a liberal quantity of leaf-mould is mixed. Colors pink, red, white, yellow.

Mollis—A beautiful species from Japan; perfectly hardy, with large flowers and varied in color.

BARBERRY (Berberis).

European (vulgaris)—A handsome deciduous shrub, with yellow flowers in terminal drooping racemes in May or June, followed with orange scarlet fruit.

Purple-Leaved (vulgaris purpurea)—An interesting shrub, growing three to five feet high, with violet purple foliage and fruit; blossoms and fruit beautiful; very effective in groups and masses, or planted by itself.

Thunbergii (Thunberg's Barberry)—From Japan. A pretty species, of dwarf habit, small foliage, changing to a beautiful red in autumn, making it very attractive.

CALYCANTHUS, OR SWEET-SCENTED SHRUB.

This is very desirable on account of the peculiarity and very pleasing fragrance of its wood; its foliage is rich; flowers of a rare chocolate color, with an agreeable odor. The Calycanthus blossoms in June and at intervals through the summer; very desirable. When full grown, six to eight feet.

CLETHRA, OR SWEET PEPPER BUSH.

Alnifolia—Very hardy; blooms every season without fail; cold never harms it; flowers pure white, in spikes three to six inches long. A bed of Clethras will perfume the air for a long distance around. A single sprig will fill a room with its delightful fragrance. It is a neat, upright-growing shrub, and is not only valued for its beauty and sweetness, but is now in demand for the honey-bee to feed upon. The honey is almost white, thick and of fine flavor. The plant is very easy of cultivation; never fails to bloom after a hard winter, and is worthy of a front place in every garden.

CORNUS, OR DOGWOOD.

Mascula (Cornelian Cherry)—A small tree, producing clusters of bright yellow flowers early in the spring before the leaves.

Mascula Var. (Variegated Cornelian Cherry)—Foliage beautifully variegated with white; one of the prettiest variegated shrubs in cultivation.

Red-Branded (Sanguinea)—A native species, very conspicuous and ornamental in winter, when the bark is blood red.

Variegated-Leaved Red-Branded (Elegantissima Var.)—This variety of the well known red Dogwood has silver margined leaves, which render it a very showy shrub. We consider it to be an addition of great merit.



CURRENT (Ribes).

- Double Crimson-Flowering** (Flore pleno)—Flowers in July; very pretty.
- Gordons** (Gordonianum)—Flowers crimson and yellow in May; very hardy and a profuse bloomer.
- Yellow-Flowering** (Aureum)—A valuable variety producing small yellow flowers in early spring. Blossoms have a delicate spicy fragrance.

DEUTZIA (Deutzia).

This valuable plant comes from Japan. Its hardihood, fine habit, foliage, and beautiful flowers, render it the most popular of flowering shrubs. Flowers are produced in long racemes during the latter part of June.

- Candidissima**—Strong growing variety with pure white double flowers.
- Crenata**—Flowers double; white tinged with rose. One of the finest flowering shrubs in cultivation.
- Gracilis** (Slender-branched)—A charming species; flowers pure white. Fine for pot culture and cemetery planting. Of dwarf habit.
- Lemoine**—Flowers pure white, borne on stout branches of upright growth. Dwarf and free flowering. Although comparatively new is already very popular.
- Pride of Rochester**—A variety raised from the double-flowered and producing large, double white flowers, the back of the petals being slightly tinged with rose. It excels all of the older sorts in size of flower, length of panicle, profuseness of bloom and vigorous habit, and blooms nearly a week earlier than the parent.
- Scabra** (Rough-leaved)—One of the most beautiful profuse flowering shrubs; flowers single white.

ELDER (Sambucus).

A large, showy shrub, blossoming in June. Requires frequent pruning.

- Cut-Leaved** (Laciniata)—One of the best cut-leaved shrubs.
- Golden** (Aurea)—From Holland. New and rare. When the leaves first appear they are bright green, but if planted where they will have plenty of sun they soon change to a golden green. The blossom, which resembles the common Elder bloom, appears in July. The best effect is produced when they are planted with other shrubs, thus rendering the foliage more conspicuous by the contrast.

ELEAGNUS.

- Longipes**—This is a remarkably beautiful new shrub from Japan. In July the plant is covered with bright red berries of large size and edible, the flavor being pungent and agreeable. Laden with fruit the bush is highly ornamental, and the fact that its leaves remain fresh till late in the autumn gives it additional value for garden decoration.

EXOCHORDA, OR PEARL BUSH.

- Grandiflora**—From Northern China. The plant is entirely hardy, enduring from 20 to 30 degrees below zero without the slightest injury. It is a vigorous growing shrub, forming a neat, compact bush ten to twelve feet high; can be trimmed into any desired shape. Flowers pure white, borne in slender racemes of eight to ten florets each.

FILBERT (Corylus).

- Purple-Leaved**—A very conspicuous shrub, with large, dark purple leaves. Distinct and fine.

FORSYTHIA, OR GOLDEN BELL.

- This is a pretty shrub of medium size. Native of China and Japan. The flowers are drooping, yellow, and appear very early in the spring, before the leaves. The best very early flowering shrub.
- Fortunei**—Growth upright, foliage deep green, flowers bright yellow.



HYDRANGAEA PANICULATA GRANDIFLORA

(See Page 59)



Forsythia — Continued

Suspensa (Weeping Forsythia)—Resembles Fortunei in its flowers, but the growth is somewhat drooping.

Viridissima—Leaves deep shining green; flowers bright yellow. One of the earliest flowering shrubs.

FRINGE.

Purple Fringe, or Smoke Tree (*Rhus Cotinus*)—A small tree or shrub, very much admired on account of its peculiar fringe or hair-like flowers, covering the whole surface of the bush in mid-summer.

White (*Chionanthus Virginica*)—One of the finest shrubs with large leaves and racemes of delicate fringe-like greenish-white flowers, in May and June.

HONEYSUCKLE, UPRIGHT (*Lonicera*).

The following species and varieties are of erect, shrubby habit, and form beautiful specimens when properly trimmed:

Fragrantissima—A spreading shrub with deep green foliage and very fragrant small flowers, which appear before the leaves; foliage almost evergreen; most desirable.

Red Tartarian—A well known old fashioned sort which blooms in May. It has slender and upright branches, with small bright pink flowers followed by red or orange-yellow berries.

White Tartarian—Same as the Red Tartarian, except in its beautiful white flowers, for reason of which it is fine for planting with other varieties for contrast.

HYDRANGEAS.

Beautiful free flowering shrubs, bearing immense panicles or trusses of flowers. *Paniculata* and *Arborescens* are hardy and require no protection; the other varieties require protection in winter and should be grown in pots or boxes and wintered in the cellar.

Arborescens Grandiflora Alba (Hills of Snow)—“This hardy American shrub is the very finest addition to this class of plants found in many a year. The blooms are of the very largest size, of pure snow-white color, and the foliage is finely finished, lacking entirely the coarseness found in *Hydrangea paniculata grandiflora*. One of its most valuable characteristics is its coming into bloom just after the passing of all the early spring shrubs, while its long season of bloom, from early June through August, renders it doubly valuable, not only to the florist, but to every owner of a garden; perfectly hardy, standing 20 degrees below zero. The form of the panicle is much like that of *Hydrangea Hortensia*.”

Otaksa—A splendid variety from Japan. Flowers large, bright pink, tinted with blue; produced very freely. Not hardy.

Paniculata Grandiflora—This is one of the most valuable hardy shrubs. It attains a height of three or four feet, and is perfectly hardy in all parts of the country. The flowers are white, borne in immense panicles nearly a foot in length. It commences flowering in July and continues until November. The plant should be cut back every spring at least one-half of last season's growth, as the flowers are borne on new wood and are much finer when the plant is treated this way. An excellent shrub for cemetery planting.

Red-Branched—A grand variety, producing flowers in immense sized trusses. Color very deep rose or light cherry. Not hardy.

Thomas Hogg—Immense trusses of flowers, at first slightly tinged with green, becoming of the purest white, and remaining so a long time. Not hardy.

Tree Hydrangea (*Paniculata Grandiflora*)—In tree form. Beautiful as a shrub, they are grandly beautiful as a tree, growing in loveliness as they acquire age and size.

KERRIA (*Corchorus*).

Japonica (Japan *Corchorus*)—A slender green-branched shrub, with globular, yellow flowers from July to October.

Flore Pleno (Double-flowered *Corchorus*)—Of medium size; double yellow flowers.

LILAC (*Syringa*).

Well known and beautiful hardy shrubs; very ornamental in the spring; flower in May.

Charles X.—Magnificent clusters of dark red flowers, produced in the greatest profusion. A splendid variety.

Chinese Weeping (New)—A beautiful weeping tree; produces large clusters of beautiful intensely sweet flowers. A great acquisition. Creamy white.

Common Purple—Bluish purple flowers.

Common White—Cream-colored flowers.

Frau Dammann—This produces the largest clusters of white lilacs, of the common species known in cultivation, and also the purest white. Highly desirable.

Jacques Calot—Very large panicle with delicate rosy pink flowers. The individual flower is moderately large.

Japan Tree—A remarkable new species from Japan, becoming a good-sized tree; foliage dark green, glossy; flowers small, feathery, but formed in great panicles often eighteen inches long, very light straw color; blooms a month later than other lilacs.



Lilacs — Continued

Josikea—A species found in Transylvania; leaves long, wrinkled; flowers blue.

Leon Simon—Trusses attaining 14 inches in circumference; 4-parted; compact; crowded and packed with blossoms. These flowers, which are piled one on another, are very double, and perfectly round; color bluish crimson; buds, clear coral. The whole appearance of the cluster produces the effect of a lot of wall-flowers joined together. This plant is altogether extraordinary, and has nothing to resemble it, in point of beauty, either among single or double lilacs.

Ludwig Spaeth—This is, without doubt, the most beautiful variety of the old purple lilac ever produced. The single blossoms, as well as the clusters, are very large, and of a splendid dark purple red color, not only as buds, but even when the blossoms are fully expanded.

Persian Purple—The slender growth and profuse blooming make this variety very desirable. Flowers light purple, in open heads completely covering the bush.

Persian White—Similar to the preceding, but with delicate white fragrant flowers shaded with purple.

President Grevy—Magnificent spikes, of an amplitude unknown before in single lilacs, attaining more than a foot in length, with proportionate width, individual flowers over an inch, with two or three rows of rounded petals of a cobalt blue, with the centers more brilliant and the edges rosy; these reversed edges make the fine blue of the center show strongly by the contrast.

Villosa—Another new species from Japan. Large branching panicles; flowers single, light purple in bud, white when open; fragrant; foliage resembles White Fringe. Especially valuable, as its flowers appear two weeks after those of other lilacs.

We also have the following recently imported new varieties in stock:

- Alphonse Lavelle**—Violet blue.
- Belle de Nancy**—Semi-double light blue.
- Cassimir Pereire**—Double white.
- Chas. Joley**—Reddish purple.
- De Humboldt**—Double violet rose.
- De Jussieu**—Double reddish blue.
- Dr. Lindley**—Purplish lilac.
- Dr. Maillot**—Semi-double lilac.
- La Mauve**—Double lavender.
- Lemoineii**—Double reddish purple.
- Lilarosea**—Rosy lilac.
- Linne**—Double reddish lilac.
- Louis Henry**—Double dark pink.

Mad. Abel Chatenay—Double white.

Mad. Briot—Double rose.

Michael Buckner—Double lilac.

Monument Carnot—Double lavender.

Mar. de Bossompierre—Double carmine rose.

Oblata—Early purple.

Pres. Carnot—Double flesh.

Prince de Beauveau—Double violet.

Prince of Wales—Purplish lilac.

Virginite—Double tender rose.

Volcan—Deep red. Single.

PLUM (Prunus).

Double-Flowered (Prunus Triloba)—Native of China. A highly interesting and desirable addition to hardy shrubs; flowers double, of a delicate pink, upwards of an inch in diameter, thickly set on the long, slender branches; flowers in May.

Purple-Leaved (Prunus Pissardi)—The finest purple-leaved small tree or shrub of recent introduction. The young branches are a very dark purple; the leaves when young are lustrous crimson, changing to a dark purple, and retain: this beautiful tint till they drop late in autumn; no other purple-leaved tree or shrub retains its color like this. It transplants easily and is worthy of wide dissemination. Flowers small, white, single, covering the tree.

QUINCE (Cydonia).

There are several flowering varieties, differing only in their color. Although of straggling growth, they can be pruned to desirable shapes without injury. Their large brilliant blossoms appear early in the spring in great profusion. Foliage bright green and glossy all through the summer. It is sufficiently thorny and strong to make a valuable hedge, and its beautiful flowers make it very handsome for that purpose.

Scarlet (Japonica)—One of the best known, and a very handsome, hardy shrub.

SNOWBALL, OR ARROW ROOT (Viburnum).

Common, or Guelder Rose (Sterilis)—The well known sort, and a general favorite on account of its large clusters of white flowers in June. Very handsome and desirable, and should be in every collection.

Japan (Viburnum Plicatum)—A rare and exceedingly beautiful species from Japan, surpassing the Common Snowball in many respects, as its habit is much better, foliage much handsomer, flowers whiter and more delicate. Very valuable.

Opulus (High Bush Cranberry)—Flowers in large, flat heads in latter part of May, followed by brilliant scarlet fruit in showy pendulous branches that remain on the plant all winter.



JAPAN SNOWBALL

(See Page 40)

SNOWBERRY (*Symphoricarpos*).

Racemosus—A well-known shrub with pink flowers and large white berries that remain on the plant through part of the winter.

Vulgaris (Indian Currant, Coral Berry)—Graceful, small shrub, small flowers followed by persistent deep-red berries along the underside of branches.

SPIREA, OR MEADOW SWEET.

Hardy and easily grown; of low growth, requiring but little room; long bloomers; in season about three months.

Anthony Waterer—A beautiful variety with broad heads of deep pink flowers. Grows two to three feet high, making a shapely bush. Blooms almost continuously from June throughout the season.

Arguta—Dwarf; flower clear white. Best very early flowering Spirea.

Billardi—Rose-colored; flowers in spikes; blooms nearly all summer.

Callosa (Fortunei)—Very fine and distinct, having bright, rose-colored flowers, in flat clusters, blossoming throughout the summer.

Callosa Alba—A dwarf variety of the former, having pure white flowers in the greatest profusion. Very desirable on account of its dwarf habit and free flowering; keeps all summer.

Golden (Aurea)—This is one of the most effective shrubs for a lawn; foliage green, bordered with rich golden yellow; very distinct and beautiful, particularly in June, when the branches are covered with a double white flower.

Lance-Leaved, Double (*Lanceolata flore pleno*)—A variety having double-white flowers; distinct and desirable.

Prunifolia, or Bridal Wreath—Very desirable, having double, daisy-like flowers of pure white in the greatest profusion. Very hardy and in every way desirable, as it keeps in flower a long time.

Reevesii—A charming shrub, with narrow, pointed leaves, and large round clusters of white flowers that cover the whole plant.

Thunberg's (Thunbergii)—Extremely neat and graceful in its habits; dwarfish and rounded; drooping branches, narrow, yellowish green foliage; white flowers, early in spring. One of the best and deserves a place everywhere.

Van Houtte—The grandest of all the Spireas; it is a beautiful ornament for the lawn at any season, but when in flower it is a complete fountain of white bloom, the foliage hardly showing. Clusters of twenty to thirty flat white florets make up the raceme, and these clusters are set close along the drooping stems. Perfectly hardy, and an early bloomer.

STRAWBERRY, OR SPINDLE TREE

(*Euonymus*).

Red—This is a very beautiful small tree, or shrub, when covered with its red berries through the winter.

White—Similar to the Red, having white fruit; when planted with the Red it forms a pleasing contrast.

SUMACH (*Rhus*).

Cut-Leaved—A decidedly attractive shrub of moderate size, with deeply cut leaves, almost fern-like in appearance; foliage turns to a rich crimson in autumn.

Sumach — Continued

Typhina (Stag's Horn Sumach)—A large shrub or tree; brilliant foliage and scarlet fruit in autumn. It will thrive in poor, rocky soil.

SYRINGA, OR MOCK ORANGE

(Philadelphus).

Common, or Fragrantissima—An invaluable shrub of vigorous habit, very hardy, with large handsome foliage, and beautiful white flowers, produced in the greatest profusion at the blossoming season. Flowers in June after the Weigela.

Double-Flowering (Flore pleno)—Very fragrant.

Dwarf (Nanus)—Rarely produces flowers.

Golden-Leaved (Aurea)—A very pretty plant of medium size, with golden yellow foliage. It keeps its color the entire season, and will be found valuable for creating pleasing and striking contrasts with purple-leaved shrubs. Very effective in masses.

TAMARIX.

This is a hardy shrub, with small leaves, similar to the Juniper; the flower is small and



SPIREA VAN HOUTTE

(See Page 41)

delicate and borne in spikes; does well by the seaside, where other plants cannot live.

Africana—Flowers in May; very handsome foliage.

Chinese—A vigorous, upright grower, with delicate foliage of a lively green color; flowers rose colored, in September.

WEIGELA (Diervilla).

Very desirable, hardy, easily grown and great bloomers. As these shrubs grow older they gradually spread and droop; flower in June and July; in borders and groups of trees they are very effective; bloom after lilacs in June. The following are the most desirable varieties:

Amabilis—Of robust habit, large foliage and pink flowers, blooms freely in the autumn; distinct and beautiful.

Candida—This is the very best of all the white flowering Weigelas. A strong, upright, erect grower; flowers pure white and produced in great profusion in June and continues to bloom through the entire summer.



WEIGELA EVA RATHKE

(See Page 43)



Weigela—Continued

Desboisii—Deep rose color; one of the brightest and finest.

Eva Rathke—A charming new *Weigela*, flower brilliant crimson; a beautiful, distinct, clear shade, producing two and sometimes three crops of blossoms in a season.

Floribunda—A fine variety; flower dark red. A profuse bloomer.

Rosea (Rose Colored)—A hardy and beautiful shrub, bearing in May a profusion of rose-colored flowers. Introduced from China, and justly considered one of the finest shrubs we have.

Variegated-Leaved—Very desirable on account of its finely variegated foliage, which is yellowish white; lasts the entire season, and contrasts finely with its rose-colored flowers.

CLIMBING AND TRAILING SHRUBS

The Climbing Shrubs are useful to adorn and embellish the yard and grounds, and to hide whatever may be unsightly, and when trained over verandas, arbors and trellises they, or so many of them as can be well located, cannot fail to challenge admiration by the beauty of their flowers and the elegance of their foliage. They are all desirable where space and time can be given to their culture.

ACTINIDIA.

A climbing plant from Japan. The flowers are white with a purple center, and sometimes cover the whole vine. The fruit is round, edible, and has a fine flavor. Foliage dark green, handsome.

AKEBIA.

Quinata—A singular Japanese climbing shrub, with fine foliage, purple flowers and ornamental fruit.

AMPELOPSIS.

American Ivy, or Virginia Creeper—Has beautiful digitate leaves that become rich crimson in autumn. A very rapid grower. Like the ivy, it throws out roots at the joints, by which it fastens itself to anything it touches.

Veitchii, or Japan Ivy (Boston Ivy)—Leaves smaller than those of the American, and overlap one another, forming a dense sheet of green. The plant is a little tender while young, and requires protection the first winter; but once established, there is no further risk. It grows rapidly and clings to the wall or fence with the tenacity of ivy; the foliage is very handsome in summer, and changes to crimson scarlet in autumn. For covering walls, stumps or trees, rockeries, etc., no plant is so useful. For the ornamentation of brick and stone structures, it can be specially recommended.

ARISTOLOCHIA (Birthwort).

Sipho (Dutchman's Pipe)—A native species, of climbing habit and rapid growth, with magnificent light green foliage 10 to 12 inches in diameter, and curious pipe-shaped, yellowish brown flowers.

BIGNONIA, OR TRUMPET FLOWER.

A vigorous and hardy climber, with clusters of scarlet trumpet-shaped flowers in August.

CLEMATIS.

None among hardy perennials exceeds in beauty and effectiveness the finer sorts of *Clematis*. As a climber for the veranda, a screen for fences, for pillars along the garden walks, for training on walls or arbors, in masses on



CLEMATIS PANICULATA

(See Page 44)



***Clematis* — Continued**

rockwork or cultivation in pots, it has no rival among the strong-growing, blossoming plants. The Clematis should be grown in rich, deep, sandy loam, and be well mulched with rotten manure in winter. The richest sheets of bloom, and largest flowers are obtained where it has partial shade and a liberal supply of water at the roots. After many years' experience we have come to the conclusion to grow only a few varieties which have proved worthy of general cultivation.

Coccinea—Very hardy; bears thick, bell-shaped flowers, bright red coral; blooms very profusely during June and until frost. One of the best of the older sorts. Valuable for foliage, being a peculiar green and elegantly cut and variegated.

Crispa—Very hardy and a free bloomer; flowers blue, with center of petals an opaque white; very fragrant; useful for festooning.

Henryii—One of the best perpetual hybrids; of robust habit and a very free bloomer. The flowers are white, large and very showy. July to October.

Jackmanni—This is perhaps the best known of the newer fine perpetual Clematis, and should have credit of the great popularity now attending this family of beautiful climbers. The plant is free in its form of growth, and an abundant and successional bloomer, producing flowers until frozen up. The flowers are large and intense violet purple, remarkable for its velvety richness.

Lawsoniana—A hybrid variety; showy and free, with very large, beautiful rosy-purple flowers, which are produced profusely and in continual succession. July to October.

Mad. Ed. Andre—This is the nearest approach to a large red clematis and has been called the Crimson Jackmanni. The plant is a strong, vigorous grower and very free in bloom. Color a distinct crimson red; a very pleasing shade and entirely distinct from all other varieties.

Paniculata—A Japanese plant possessing unusually attractive merits. A vine of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy green foliage. The flowers are of medium size, pure white, borne in immense sheets, and of a most delicious and penetrating fragrance. These flowers appear in September, and at a season when very few other vines are in bloom. The extreme rapidity of its growth, the showy foliage, beautiful and fragrant flowers borne so very freely, and its late blooming nature, united with an entire

hardihood, serve to make this one of the very choicest of recent introductions.

Ramona—This magnificent new Clematis is an American seedling, and consequently extremely hardy. The Ramona is a strong, rampant grower, fully three times as strong as the Jackmanni, often growing ten or twelve feet the first season. It is a perpetual bloomer, giving an abundance of flowers through the season. In color it is a very deep sky-blue, distinct from any other kind, and very attractive.

Virginiana—A very strong grower, having small fragrant white flowers. Valuable for covering screens.



DUTCHMAN'S PIPE

(See Page 43)

HONEYSUCKLE (*Lonicera*).

This includes some of the most desirable climbing plants that can be used for covering arbors and porches.

Chinese Twining (Japonica)—A well-known vine, which holds its leaves nearly all winter. Blooms from July to September, and is very sweet.

Hall's Japan (Halleana)—An almost evergreen variety, with pure white flowers, changing to yellow; very fragrant and a vigorous grower. Covered with flowers from July to December. Best blooming of all.



Honeysuckle — Continued

Golden-Leaved (*Aurea reticulata*)—A Japanese variety; moderately strong grower, with leaves veined and spotted with bright golden yellow.

Monthly Fragrant (*Belgica*)—Flowers red and pale yellow; sweet scented; blooms through the summer.

Scarlet Trumpet (*Sempervirens*)—Flowers deep red, trumpet-shaped; flowers all summer; a native climber and appropriate for trellises and rockwork. One of the handsomest.

MATRIMONY VINE (*Lycium*).

Chinese—A superb variety, which has been a favorite for many years. It is a most vigorous, hardy climber in any position. It con-

tinues flowering, and new berries are forming from late spring until frost. The berries remain on the vine until late into the winter. Beautiful and easy of culture.

WISTARIA.

Chinese Purple (*Sinensis*)—One of the most magnificent hardy climbers, producing racemes of pale purple flowers early in spring and autumn, and growing at the rate of fifteen or twenty feet in a season, attaining an immense size.

Chinese White (*Sinensis alba*)—Introduced from China. A beautiful climber, differing from the above only in color, being a pure white.

Double Purple—New and desirable.

EVERGREEN SHRUBS

ANDROMEDA.

Floribunda (*Pieris Floribunda*)—A hardy little evergreen shrub with spikes of tiny pure white flowers very early in the spring, which are similar to a spray of lily-of-the-valley.

Japanica—A beautiful low shrub with drooping racemes of small white, wax-like flowers in May and June. The shining deep green leaves are handsome. A desirable plant at the front of the groups of broad-leaved evergreens, or in shaded places.

BOX (*Buxus*).

Dwarf (*Nana*)—The well-known sort used for edging.

Pyramidal Box (*Sempervirens*)—This variety of Boxwood grown in pyramidal form is very beautiful and attractive. We can furnish plants from 2 to 6 feet in height.

Standard Box—Same variety of Boxwood as the former only grown in standard or tree form with handsome rounding heads from 15 to 18 inches in diameter.

Tree Box (*Sempervirens*)—A shrub of the largest size, succeeding well in the shade.

DAPHNE.

Cneorum—A beautiful evergreen shrub with fragrant pink flowers. Blossoms in June and October.

ILEX (*Holly*).

American Holly (*Opaca*)—Deep green, glossy leaves with scattered spiny teeth, bright red berries.

Japanese Holly (*Crenata*)—An intricately branched evergreen shrub or small tree. Native of Japan. Leaves small, in size and

shape similar to those of the Boxwood, deep lustrous green. Berries black. Excellent for hedge plants or specimens. Withstands temperature of ten degrees below zero.

MAHONIA.

Holly-Leaved (*Aquifolium*)—A beautiful Holly-like shrub, with showy, golden yellow flowers and purplish leaves. Very ornamental.

MOUNTAIN LAUREL (*Kalmia*).

Latifolia—Broad, glossy-green, shining foliage, flowers in large and showy clusters of elegant shape, and most beautifully colored. Few broad-leaved evergreens are as beautiful in foliage, and none can excel the beauty and delicate form of its flowers.

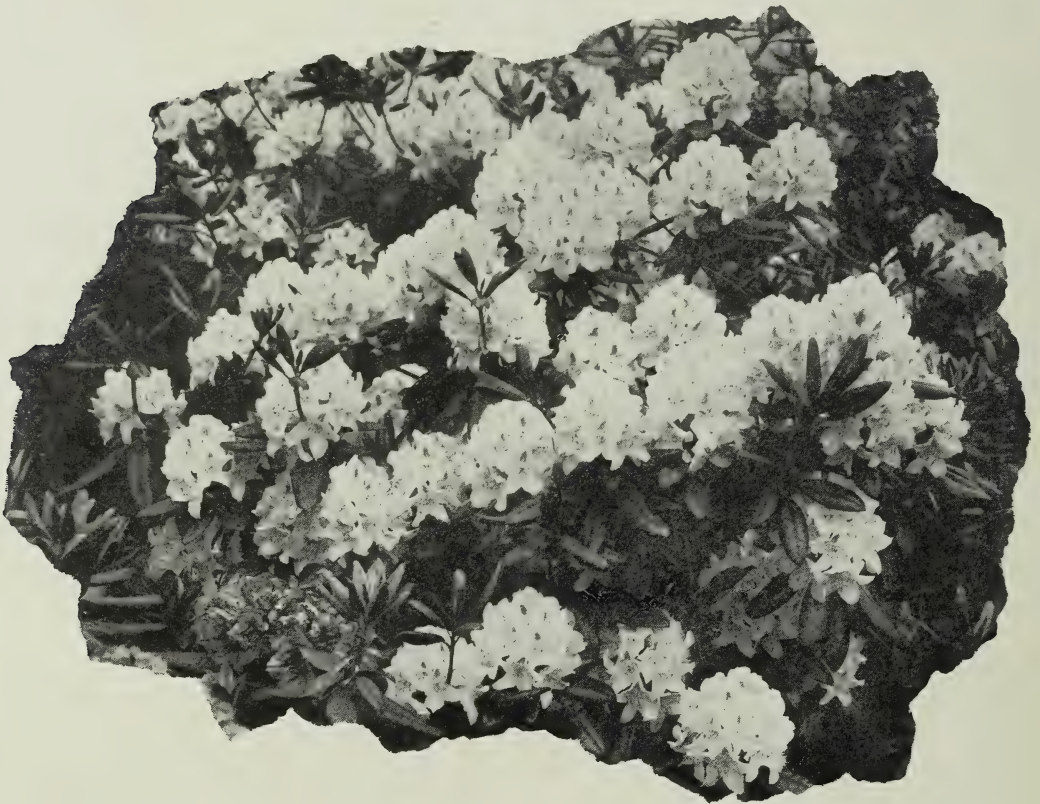
RHODODENDRON (*Rosebay*).

This, wherever known, is universally acknowledged to be the most showy, magnificent hardy evergreen shrub that grows. It should be planted in well prepared soil of leaf mould, or leaf mould and muck and peat mixed, and in partial shade. The broad thick evergreen foliage, with its glossy richness, would alone entitle it to a place foremost in the rank of evergreen shrubs, but when in June this luxuriant mass of evergreen foliage is almost hidden by the magnificent array of beautiful flowers in clusters and each cluster large enough for a lady's bouquet it gives it a pre-eminence that our pen would fail to portray. Planted singly, in the flower garden or upon the lawn, they are objects of interest, but their greatest beauty, as in many other plants, can only be fully developed by artistically massing them in beds upon the lawn, when the different colors can be made to blend or contrast at will,



producing an effect unrivalled by any other hardy plant in existence. When soils are too strongly impregnated with lime, the original soil should be removed to a good depth and width where the Rhododendrons are to be planted and the space filled in with leaf mould and peat or muck mixed, or some other soil tolerably free from lime. Colors: pink, purple, red, white.

Maximum (Great Laurel)—This is the hardy Rhododendron which blooms in midsummer and makes the wooded hillsides and mountains of the eastern and New England states magnificent with white, blush and delicate pink flowers. Valuable for planting alone, in groups or interspersed among other shrubbery, or with the brighter colored hybrid Rhododendrons.



RHODODENDRON

GOLD MEDAL PAEONIES



At the Louisiana Purchase Exposition we were awarded the highest award, a Gold Medal for the largest and most excellent production of Paeonies.

Notwithstanding the fact that the blooms were shipped from our Nurseries at Rochester, N. Y., and were on the road for over twenty-four hours, they were on exhibition for from four to five days longer than any of our competitors, showing the great strength and stability of our stock.

We devote many acres to growing paeonies and have without question the largest stock, as well as the largest number of thoroughly tested varieties in this country.

CLASS I.—PAEONY MOUTAN.

(Tree Paeonies).

Moutan is a native of China. With proper care they grow into handsome shrubs four to five feet, but this requires some time. They bloom very early in May; the plants are hardy, yet give better results if protected in winter.

Chinese Double-Blush (Banksii)—Flowers are very large, often measuring six to nine inches; very fragrant, rosy blush. Flowers in great profusion.

CLASS II.—HERBACEOUS PAEONIES.

These contain the largest, most showy and attractive flowers in cultivation, almost rivaling the rose in color and bloom. They are of stately growth, very hardy, and delightful when in bloom. At the present time they are very fashionable; the public beginning to appreciate the many fine varieties of recent introduction,

ranging from pure white through the different shades of pink, rose, variegated, purple, etc. They increase in beauty with age, and may be planted in almost any situation. We recommend fall planting. They succeed best in rich soil, and will be benefited by a mulch of rotten manure during the winter which may be lightly spaded into the soil in spring. Our collection is par excellence and we think the best attainable.

PAEONY OFFICINALIS.

This division contains the earliest flowered varieties.

Alba Plena (Mutabilis)—Soft pink, changing to white when fully opened. Very beautiful variety.

Fringe Leaf (Tenuifolium flore pleno)—Double; bright scarlet crimson. Foliage finely cut. This is the earliest herbaceous paeony to bloom.

Rosea—Double crimson, changing to rose; fragrant; fine.

Rubra—Double crimson; large and fragrant.

CHINESE PAEONIES.

Agida—Dark red, with yellow anthers.

Alba Lutea—White with yellow center; very large and fine.

Alba Siberica—Flesh white with yellowish white center. Late.

Alexander—Rose-pink. A prolific bloomer on stiff stems. Early.

Humei—Purplish-rose. Full and double.

Alexander Dumas—Bright rose; large and fine. One of the best.

Andre Lauries—Rosy lilac. Very late.



Chinese Paeonies—Continued

Anemonaeflora—Outer petals pink with a light pink center.
Antoine Poiteau—Flesh, changing to white.
Belle of France—Bright pink; very large and fine; good form.
Bicolor—Pink rosette, with a light pink center.
Canary—White straw-colored center. Tall.
Carnea Alba—Flesh white; large; extra fine.
Carnea Elegans—Light red; fine flower. Late.
Chas. Grosselin—Purple. The center petals are very narrow; fine and very distinct.
Chrysanthemumiflora (True)—White, with yellow center.
Couronne d'Or—Large globular flowers, white and yellow on stiff stems. A late variety.

Humei—Purplish rose. Full and double.
Incarnata—Flesh white; extra fine; early.
Jeanne d'Arc—Flesh white; salmon center.
Lilacina—Lilac rose; late; very fine.
Louis Van Houtte—Purplish crimson; very compact and showy.
Lutea Plenissima—Dwarf white, yellowish center.
Mad. Furtado—Deep rose, tinted lilac. Very early.
Magnifica—Delicate pink changing to white.
Marie Lemoine—China pink, shading to white at tips.
Modeste—Pink; very large and showy; fragrant.
Mutabalis—Early dark pink. Erect and early.
Nivalis—Sulphur white, tinged with carmine.



A BORDER OF PAEONIES

Delachii—Dark purplish crimson; shaded violet.
De la Court Verhille—Cream changing to white.
Duke of Wellington—White and light lemon yellow center.
Eculus—Late violet-rose.
Elegans—Pink; large and full; extra fine.
Emperor William—Dark purplish red; very large.
Festiva Maxima—Very large, snow white; some of the center petals are tinged with carmine; fragrant, extra fine.
Fragrans—Violet rose; very full and sweet.
Fulgens—Single red, with large yellow anthers.
Fulgida—Crimson purple; profuse bloomer.
Grandiflora Rubra—Dark purplish red; late; very good.

Nivea Plenissima—White; creamy center; fine.
Pottsii Alba—Large white, with carmine spots.
Prolifera Tricolor—White, center yellow. The most yellow paeony we have.
Purite—Large, pure white. Good form.
Purpurea—Purplish crimson; good shade, tall and showy.
Queen Victoria (Whitleyii)—Blush white; creamy white center.
Rosacea Splendida—Light pink, with narrow white petals in center. Early.
Rubicunda—Light red; large and full.
Triomphe du Nord—Violet rose, shaded lilac.
Victoria Modesta—Guard petals, rose; center, salmon and pink changing to white.

HARDY HERBACEOUS FLOWERING PLANTS

The following collection embraces the most desirable species and varieties. They are all showy and beautiful plants, of easy cultivation, and of various seasons of flowering from May to November. By a judicious selection a continuous display of flowers may be obtained from early spring to the end of autumn. Parties in ordering will do well to leave the selection to us. The size indicated is the height attained by the different plants.

ACHILLEA (Yarrow, or Milfoil).

The Pearl—Small, double white flowers, covering plant in July. Invaluable for borders. One of the prettiest flowering plants and should be in every garden.

ANCHUSA.

Dropmore—This is the most important hardy border plant introduced in many years. The best blue flowered plant we have. It is hardy, growing to a height of 3½ feet, making a bushy plant which is literally covered with pure blue flowers one inch in diameter, and is then a paragon of beauty.

ANEMONE (Wind Flower).

Japonica—A distinct and beautiful species; flowers 2½ inches in diameter; bright purplish rose, with golden yellow centers, borne in great profusion from September to November. Height 2½ feet; habit neat and compact; very desirable and effective as a pot plant, and in lines or masses, in beds or mixed borders.

Queen Charlotte—A new variety producing double rose colored flowers in great profusion in the autumn. Very valuable.

Whirlwind—A variety producing double white flowers in great profusion in the autumn. One of the finest fall-flowering perennials.

White—A distinct and beautiful variety of the Japonica; flowers 2½ inches in diameter; pure white, center golden yellow, borne in great profusion from September to November; effective as a pot plant, and in lines or masses, in beds or mixed borders.

ANTHEMIS (Chamomile).

Tinctoria (Hardy Golden Marguerite)—Flowers golden yellow, one to two inches across, from July to November; valuable. Twelve to eighteen inches.

AQUILEGIA (Columbine).

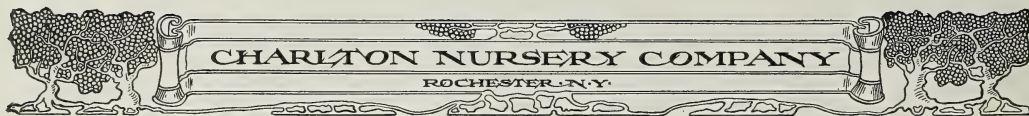
Caerulea (Rocky Mountain Columbine)—Flowers large, blue and white, with long spurs. June to September.

Canadensis—Flowers scarlet and yellow in June and July.

Vulgaris (Old-fashioned Columbine)—Flowers double and single, in all colors. Spring and early summer.



ANEMONE WHIRLWIND



ARUNDO (The Reed).

Invaluable for creating tropical effects in a garden.

Donax (Great Reed)—A handsome reed, growing from ten to fifteen feet high. Its attractive foliage renders it very effective on lawns.

Donax Variegated—A magnificent variety of the preceding; leaves beautifully striped with white; six to eight feet.

ASTER (Michaelmas Daisy).

These perfectly hardy plants are indispensable for the rockery or border, blooming in the fall when flowers are scarce.

Gloire de Nancy—Two feet; white, of largest size; very floriferous.

Pres. Kruger—Dwarf, twelve to eighteen inches; large, deep blue, very early and blooms until frost.

Novae-Anglae—Bluish purple; four feet.

ASTILBE

(Japan Spirea).

Japonica—known generally as *Spiraea Japonica*, or *Hoteia Japonica*. A handsome plant, with small, pure white flowers, in large, branching panicles. Blooms in May, in the open air, but is cultivated chiefly for forcing in winter.

BOLTONIA

(False Chamomile).

Aster-like flowers in a broad head; rosy purple; free blooming, showy and fine; five feet. July to October.

CAMPANULA

(Bell-Flower).

Campanulas are so well known as to need very little description. Nearly all bloom during the summer in profusion, and are of easy culture. Good for cutting.



DIGITALIS

CHRYSANthemUMS.

The small flowered, hardy, pompon chrysanthemums are becoming very popular again; they are the only perfectly hardy ones we have, and give showers of bloom long after frost in the fall.

We can furnish them in crimson, pink, red, rose, white and yellow.

CONVALLARIA (Lily of the Valley).

Large, luxuriant foliage; flowers small, bell-shaped, in pretty racemes, and very fragrant.

COREOPSIS.

Lanceolata—One of the best perennials in cultivation, with large, lemon-yellow flowers on long stems; all summer. Two to three feet.

Grandiflora—A free flowering, desirable species, with rich golden-yellow flowers in profusion; early summer until fall; eighteen inches.

DELPHINIUM (Larkspur).

A remarkably showy class of tall growing plants, producing magnificent spikes of blue flowers in summer. We know of no plants which will afford greater satisfaction than these.

DIANTHUS.

Barbatus (Sweet William)—Flowers in various colors, in flat heads. An old favorite.

DICENTRA, OR DIELYTRA (Bleeding Heart).

Spectabilis—A handsome, most curiously formed, rosy-crimson flower, with white and blue tinged protruding stamen; one of the finest border plants; is quite hardy; well adapted for blooming in the winter; one to two feet. May and June.

DICTAMNUS, FRAXINELLA, OR GAS PLANT.

A choice perennial, forming a bush about two feet high, and bearing spikes of curious red and white flowers, which are fragrant.

Red—Twelve to eighteen inches. June.

White—Twelve to eighteen inches. June.

DIGITALIS (Fox Glove).

Flowers purple, yellowish or white, in long terminal racemes; two to three feet. June to August.

ERIANthus (Ravenna Grass).

Ravenna—Resembles the Pampas grass, but blooms more abundantly. Attains a height of from nine to twelve feet. Being perfectly hardy, is a valuable grass for the decoration of lawns.

EULALIA.

These beautiful hardy grasses are deserving of the highest commendation. For the garden they are invaluable, being very showy and ornamental and of easy cultivation. They should be in every collection.

Gracillima—A beautiful ornamental grass with narrow graceful foliage. Very valuable; four feet.

Japonica—The type; a vigorous grower with large plumes; four feet.

Variegata—Handsomely variegated leaves; four feet.

Zebrina (Zebra-striped Eulalia)—One of the most beautiful of ornamental grasses; foliage marked crosswise with bands of white and green.

FUNKIA (Plantain Lily).

Undulata Var. (Day Lily)—One of the easiest plants to manage, doing well either in shady or very sunny places. Foliage variegated green and white, purple lily-like flowers.



MONARDA DIDYMA

(See Page 52)

GAILLARDIA (Blanket Flower).

Grandiflora—One of the most effective and showiest hardy flowering plants, with gorgeous flowers of bright yellow and orange, with deep crimson centers; blooming from early summer until late autumn.

HELENIUM (Sneeze Weed).

Autumnale Superbum—Flowers clear yellow in branching panicles, produced in wonderful profusion; one of the most distinct and striking perennial plants; five feet. September.

HELLEBORUS (Hellebore).

Niger (Christmas Rose)—Beautiful white flowers, blooming in March or April.

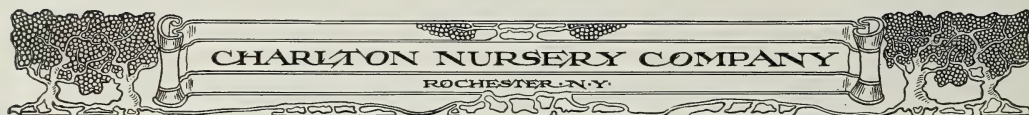
HIBISCUS (Rose Mallow).

The Hibiscus are valuable border plants, having handsome broad leaves and large showy blossoms.



GERMAN IRIS

(See Page 52)



Hibiscus—Continued

Albus (Crimson Eye)—Large, showy, white flowers, crimson eye, blooming in August. Four to five feet.

HOLLYHOCK.

A collection of fine single and double sorts of the following colors: Maroon, pink, red, rose, white and yellow.

IRIS (Fleur de Lis).

Germanica (German Iris)—These are among the most desirable early spring flowering plants. Flowers are large and of the most exquisite coloring. Every garden and border should have a liberal planting of these beautiful plants, of which we have the following colors: Blue, lavender, maroon, purple, white and yellow.

Kaempferi (Japan Iris)—Flowers differ from the German Iris, in being broad and flat. They exhibit a wonderful variety of colors and shades and appear later than the others. They rank among the most desirable of hardy plants; succeed best in a moist soil; three to four feet. July.

LOBELIA (Cardinal Flower).

A handsome effective border plant, thriving in any ordinary garden soil. Blooms from August to late in September. Flowers rich cardinal, in spikes 18 to 24 inches long.

MONARDA (Horse Mint, or Oswego Tea).

Didyma—Flowers in large heads of a bright scarlet, very showy; July and August, two to three feet.

OENOTHERA (Evening Primrose).

These are among the most beautiful and attractive of hardy plants, their flowers being large, showy and pleasingly fragrant.

Youngii—Beautiful bright yellow flowers, from June to September; eighteen inches.

Speciosa—Pure white, blooming all summer.

PAPAVER (Poppy).

Showy perennials with large flowers of rich and striking colors.

Nudicaule—A fine dwarf kind, with deeply lobed and cut leaves, and pretty yellow flowers on hirsute stems. Excellent for the rockery.

Orientalis (Oriental Poppy)—Deep scarlet; large; very showy; eighteen inches. June.

PHLOX.

These are justly esteemed as the finest of herbaceous plants. They are of dwarf habit, perfectly hardy, of very easy culture, and yield a profusion of bright, showy bloom. They are hardly equaled by any other hardy plant for the decoration of the garden.

No flowers of recent introduction are giving so much satisfaction as the dwarf, large-flowered, perennial phloxes.

They come into flower in July and continue a long time. They can be made to bloom in the autumn by pinching off the shoots about the first of June and again in July.

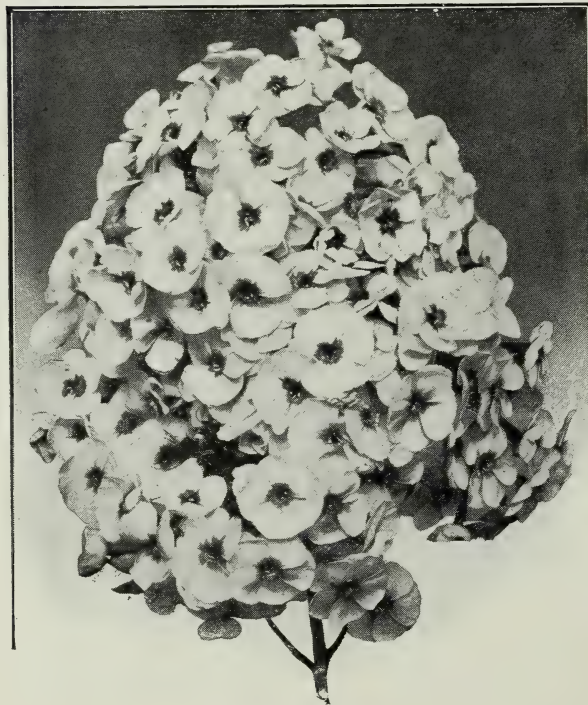
They are of the easiest culture, blooming the same season as planted, and satisfy everyone who plants them.

The best time to plant is in the fall. They are benefited by a mulch during the winter. Our collection has been selected from the finest varieties and we recommend the following:

Abyssinie—Light violet.

Amabilis (Caren d'Ache)—Dwarf; deep cherry red; very good.

Aquillon—Deep rose, carmine center; very fine.



HARDY PHLOX

Phlox—Continued

- Aurora**—Flowers large; coppery orange red, crimson center
- Coquelicot**—Crimson scarlet; exceedingly attractive.
- Eclaireur**—Carmine rose; white eye; large flower; earliest of all to bloom.
- Eiffel Tower**—A beautiful pink, tall, superb.
- Embrazeement**—Dark wine red.
- Feu de Bengal**—Bright carmine, dark center.
- King of the Purples**—Dark purple. The most attractive of all the phloxes.
- Lustre**—Rose pink, crimson center; large flower; fine.
- Pantheon**—Flowers large, beautiful; pink or salmon rose; one of the best.
- Purite**—Pure white; large truss; good habit. This is the best white we have.
- Richard Wallace**—White with violet center; a good sort.
- Wm. Robinson**—Deep rosy salmon with purple eye; large flower, very good.

RUDBECKIA (Cone-flower).

Among the most valuable hardy plants, producing showy golden yellow flowers.

Golden Glow, or Summer Chrysanthemum (Laciniata fl. pl.)—A large, showy plant, attaining in good soil a height of six to eight feet the same season planted. Flowers $3\frac{1}{2}$ inches in diameter, double, well formed, and of deep golden yellow color, resembling yellow chrysanthemums, and borne on long stems which render them suitable for cutting. Plants bloom profusely from July till September. One of the best novelties in hardy flowering plants.

Stokesia Cyanea (Stokes Aster or Cornflower Aster)—A beautiful native hardy plant; free bloomer from July to October; flowers Centaurea-like, of handsome lavender blue, measuring three to five inches across.

TRITOMA (Flame Flower, Red Hot Poker, Torch Lily).

These are well worthy a trial in every garden or border, their brilliant spikes of orange, yellow and scarlet flowers attracting attention wherever seen. Grand plant for massing, flowering from July until frost.

Pfitzerii (The Ever-blooming Flame Flower)—The freest flowering variety in cultivation, with spikes from 3 to 4 feet high and heads of bloom over 12 inches long, of a rich orange-scarlet; needs protection in winter.

VERONICA (Cancerwort, or Speedwell).

Longifolia Subsessilis—A pretty species with deep blue flowers produced on branched spikes, twelve to eighteen inches long; in bloom the entire summer.



YUCCA

VINCA (Periwinkle or Trailing Myrtle).

Caerulea Minor—A blue flowering trailing evergreen, excellent for carpeting the ground under trees where grass will not grow.

Major Variegata—Trailing habit, leaves variegated green and yellow, fine for graves and boxes.

YUCCA (Spanish Bayonet).

Has a fine appearance; the stem is two feet above the ground, covered with large, bell-shaped flowers on laterals, forming a perfect pyramid; valuable for rockwork.

Filamentosa (Adam's Needle)—Thread-leaved, creamy-white; three to four feet. July.



ROSES

Soil and Planting—Roses require a good soil, and while they will do well in any good garden mould, they will do much better if a liberal supply of manure is furnished. Spade up the ground to a depth of from twelve to twenty inches, mixing in some well rotted cow manure. Do not plant in a low spot where drainage is poor; but if you must do so, see that some broken bricks, crockery, cinders, etc., are put at the bottom of the bed to act as an underdrain. Roses on their own roots should be planted just as they stood in the nursery. There is usually a dark earth line to go by—set even with this. Budded or grafted roses must be set so that the junction of stock and graft is two inches below the surface of the soil. Keep the roots of your roses in water until you are ready to plant them, then dig a hole the required depth, set in a plant, spread out the roots naturally, fill it with fine soil, and press it down firmly with hand or foot, water well and shade for a day or two, if the weather is warm and sunny. The distance apart for your roses must be decided by their habit of growth. Strong growers will need a distance of three feet, weaker ones only one or two.

Pruning and Cultivation—At time of planting, all roses should be cut back more or less. After becoming established, pruning should be done in March. It is always best to cut out weak and decayed wood, and such shoots as crowd the plant or prevent light and air from gaining free access. Let what pruning you do be carefully done, and with a sharp knife or pruning shears. The more vigorous varieties may be pruned less than others. The old rule and the best one is, "for weak growing, delicate plants, severe pruning; for vigorous, strong ones, shorten the branches only a little, but thin them out well." To make Hybrid Perpetuals bloom twice in summer, give them a second pruning after their first bloom has fallen in June. Prune for shapeliness of plant and promotion of bloom buds, instead of slashing recklessly among them. Stir the soil frequently about the roots of your roses, and do not plant annuals among them. They must have all the nourishment for themselves if you want them to do their best. Do not let them blossom too much the first year. Let them gather strength into root and stem for next summer, when they will make a grander display.

Protection—Mulch your rose bed heavily with manure in autumn, and for winter protection cover with evergreen boughs. We

prefer to stack these about tall roses rather than bend them down. Small ones may be laid over. In hot summer weather give them a light mulch of strawy manure to keep the soil from drying out too rapidly. The rains will wash its nutriment down to the roots.

Hardy Roses include Hybrid Perpetuals, Remontants, which usually bloom profusely during June, and occasionally through the summer and autumn; Austrian, those varieties of yellow roses which bloom but once in a season, and all other kinds which live out of doors without protection through the winter. These are all suited for the garden, and thrive the best in open air. None of them require winter protection.

The **Tender Roses** includes Teas, Bourbons, Bengals, or Chinas, Noisettes, and all of those sorts which are suited for either the open ground or house culture, not named among the Hardy class. They are all tender and must be removed to the house during the winter, although the Hybrid Teas can be left in the ground if they are protected by a covering of straw, leaves, evergreen boughs, or something of that kind. They do well in the garden during the summer, and if planted in good soil, most of the varieties will bloom continually.

Climbing Roses are all hardy, and should be planted out of doors. They bloom profusely in June, and some varieties show an occasional blossom during the summer and fall. They are valuable for covering trellises, porches, rocks, etc.

Moss Roses are extremely hardy; most of them are very fragrant; they are excellent June bloomers, and some varieties bloom occasionally during the summer and autumn. The distinctive feature of the class is the "mossy" covering of the green outer leaves of the bud, which gives them an exquisite beauty to be found in no other rose.

Polyantha Roses—A class of roses of much value for bedding purposes, as they form a mass of bloom. They are of a dwarf habit, and are continuously in flower during the entire season. The flowers are produced in numerous clusters, the single ones being about one and a half inches across. The clusters produce from twenty-five to one hundred flowers. The Polyantha Roses are hardy with slight protection. They are especially valuable for planting on the borders of beds of taller growing kinds, or on the edge of foliage beds, as they are constantly in bloom, and rarely attain a height of more than ten or twelve inches.



They are also very useful in cemeteries where they at once command close attention.

Rosa Rugosa—A Japanese species, undoubtedly one of the handsomest hardy shrubs in cultivation. It forms a sturdy bush four or five feet high, covered with large, dark green pinnate, glossy foliage, crowned with terminal clusters of ten to twenty flowers; three inches in diameter. It is now well known. Both its rosy crimson and white varieties are found in all good collections and its **large, handsome scarlet fruit** is most showy during the autumn months. Excellent for cemeteries. Very hardy.

INSECTS.

Guaranteed Remedies.

Roses which are strong and vigorous are not likely to be attacked by insects, or, if attacked, are not easily injured. It is highly important, therefore, to keep your plants healthy and in good growing condition by liberal manuring and thorough cultivation. When insects appear, apply the proper remedies promptly and vigorously, and in bad attacks stir the ground deeply with the hoe and rake every day. A little perseverance to resist the present attack is all that is needed; next year you may not be troubled with insects at all. We find that a strong stream of water from a hose applied once a day, either morning or night, will keep our roses free from insects. Where this is impossible, we would suggest the following remedies which we will guarantee to keep your roses free of any insects, if properly applied and followed up. It is not an experimental remedy, but one that from many years' experience we find is an absolute insect destroyer. It is very inexpensive and can be procured at any drug store. Remember, we guarantee these remedies.

Boil for ten minutes four ounces of quassia chips in a gallon of soft water. Strain off the chips and add four ounces of whale-oil soap, which should be dissolved in it as it cools. Stir well before using. Apply with a clean painter's brush of moderate or small size, brushing every leaf and shoot that is infested. After fifteen or twenty minutes the plants should be washed or syringed with pure water. For mildew, sprinkle lightly with flour of sulphur.

The Rose Bug and other kindred pests are most effectually vanquished by a kerosene emulsion, made as follows: Dissolve one-quarter pound hard soap in two quarts of boiling water, then add one pint of kerosene oil, and stir violently for from three to five minutes, until the ingredients are thoroughly mixed; then dilute to twice its bulk with water, and apply with a spraying syringe, or sprinkle it on the plants with a small whisk broom, and repeat as often as necessary.

Rose Caterpillar appears in May, or about the time the leaves have pushed forth. It can be readily detected, as it glues a leaf or two together to form its shelter. The bushes should be gone over and the glued leaves pinched between the finger and thumb. This is the only effective remedy.

Saw Fly, larva and other insects later than the caterpillar, may be prevented by an occasional syringing, vigorously applied. When they have appeared a sprinkling of powdered white hellebore over the plants will often destroy and disperse them. The plants should be well moistened before applying the hellebore, so that it will remain.

The Red Spider seldom attacks plants in the open air, but confines itself to plants under glass. It may be kept off by daily syringing the plants with water. When plants are once infested with this insect, the fumes of sulphur will alone destroy it. This causes the foliage to drop off, but it is the best remedy.

Mildew is best cured by sulphur and soot. One of these should be applied the moment the disease appears. It is a good plan to previously sprinkle the plants with water, so that the substance applied will adhere.

MANNER OF DESCRIPTION.

1st—**Habit of Growth**—*Fig.*, free, mod., dwf.

2nd—**Color**—The prevailing shade in the most perfect development of the flower.

3rd—**Size**—*Small*—Flowers from one to two inches in diameter. *Medium*—Flowers from two to three inches in diameter. *Large*—Flowers from three to four inches in diameter. *Very Large*—Flowers from four to five inches in diameter.

4th—**Fullness**—*Semi-Double*: With two or four rows of petals. *Double*: Having more than four rows of petals, but which show the stamens when fully blown. *Full*: When the stamens are hid.

5th—**Form**—*Cupped*: Inner petals shorter than the outer ones; the latter stand erect and are generally somewhat incurved. *Globular*: Outer petals are concave with convex edges, folding richly one above the other, tapering from the center. *Flat*: The surface of the flower is level or nearly even, and all the petals are exposed to view.

It is hoped the above will make intelligible the terms used to describe the different varieties.

ABBREVIATIONS USED. DESCRIBING THE HABIT OF GROWTH.

Fig.—For vigorous, being those varieties which are most rampant in growth and produce long, strong shoots.



FRAU KARL DRUSCHKI

(See Page 59)

Free—Varieties which rank next to vigorous in growth.

Mod.—Moderate; these make a fair, compact growth, but less strong than the preceding.

Dwf.—Dwarf; these are the most delicate or slow-growing sorts. Among hardy roses, those marked dwf. are almost invariably budded.

Hardy Roses

CLIMBING ROSES (PRAIRIE, ETC.).

Baltimore Belle, vig.—Pale blush, becoming nearly white; compact and fine.

Blue Rambler (Violet Blue) (Veilchenblau)—

This new rambler is a seedling of Crimson Rambler. The blossoms, massed in large umbels, are somewhat double, of medium size. The color, on first unfolding, is either reddish pink or purplish pink, then turns to amethyst, and finally to steel blue as the flower fades. The general color indicated is that of the March Violet. We don't offer it as a perfect blue rose but present it as a forerunner of a genuine Blue Rose.

Crimson Rambler—A novelty of high order, and most distinct in its characteristics. It is a running or climbing rose of vigorous habit, strong and rapid growth, with handsome, shining foliage, and produces clusters of the brightest crimson semi-double roses.

Dorothy Perkins—Color shell-pink; pointed buds; flowers borne in clusters; very double, with beautiful crinkled buds. The only sweet-scented Rambler Rose.

Flower of Fairfield (Everblooming Crimson Rambler)—A sport or offspring of the popular Crimson Rambler. It surpasses any other Rose for brilliancy of display. Blooming in the early spring, it continues until well along in the autumn, bearing large, brilliant crimson clusters of flowers with the greatest freedom. It has the additional advantage of blooming profusely on the young wood in one-year-old plants.

Lady Gay—A very desirable new variety of remarkable, vigorous growth, with flowers of a delicate pink, changing to soft tinted white. The soft white flowers, cherry-pink buds and the deep green foliage of this variety produce a very charming effect.

Queen of the Prairie, vig.—Bright rosy red, frequently with white stripe. Foliage large and quite deeply serrated.

Tausendschon—Introduced from Germany very recently, it has become very popular. It has the same vigorous habit of growth as the Ramblers, attaining ten feet a season. Almost devoid of thorns. The flowers are of a soft pink when first opening, changing to a carmine-rose on the reverse as they fully expand.

Wichuriana, or Memorial Rose (Japanese Trailing Rose)—A distinct and valuable variety from Japan; it is a low-trailing species, its stems creeping on the earth almost as closely as the ivy. The flowers are produced in the greatest profusion in clusters on the end of every branch, after the June roses are past. Pure white.

White Rambler (Thalia)—Small or medium, daisy-like, pretty white flowers in large clusters; fragrant, very ornamental.

Yellow Rambler (Aglais)—Flowers two to two and a half inches in diameter, in clusters of six to ten. Yellow in bud, but white when fully open; when half open the flowers are tinged with yellow, slightly fragrant.

Moss Roses

The Moss Roses are favorites with every one, on account of the beautiful buds, which, for bouquets and cut flowers, are invaluable.

Blanche Moreau, vig.—Pure white, large, full, and perfect form; the buds and flowers are produced in clusters, and freely furnished with a deep green moss. A valuable variety.

Crested Moss, free—Deep pink-colored buds, surrounded with a mossy fringe and crest; free from mildew. A fragrant, very beautiful rose.

Pink Moss, free—Pale rose, very beautiful buds. A great favorite.

Salet, free or vig.—Light rose, large, full; pretty in bud.

White Bath, mod.—White, sometimes tinged with flesh; attractive in bud and open flower. The best white moss.

Hybrid Noisette Roses

This is a modern group of considerable importance, obtained chiefly from crosses between Remontant, Bourbon, and Noisette Roses. They generally flower in small clusters and bloom freely throughout the year. The flowers are mostly white, and, though small, are generally of good form. They are of about the same hardiness as the Bourbons and Hybrid Teas, requiring a little more care in their protection than the Hybrid Perpetuals.

Coquette des Alpes, vig. or free—White, slightly shaded with carmine; medium size; form semi-cupped; wood long-jointed; larger flowers than the others. The strongest grower of the class.

Coquette des Blanches, vig. or free—Pure white, sometimes faintly tinged with pink; flowers of medium size, somewhat flat, but full and very pretty; growth more bushy and symmetrical than any of the others. One of the hardiest. Later than the rest in coming into flower.



D. L. HAY
(See Page 58)



DUCHESS OF ALBANY

(See Page 59)

Rugosa Roses and their Hybrids

This is a very interesting group of Japanese origin. The plant is highly ornamental on account of its good habit and beautiful, glossy foliage.

Blanc Double de Coubert (Double White Rugosa)—A variety with double, pure white flowers, possessing a delightful fragrance. A distinct and beautiful Rose.

Conrad F. Meyer—Flowers large, $3\frac{1}{2}$ to 4 inches across, bud well formed, color silvery rose; fragrant; very valuable on account of its hardiness and vigor. "A rose that seems to come midway between La France and Mme. G. Luizet, both in form and color, but with a growth almost as lusty as a Lilac would, I think, be a true description of the above splendid variety. The buds are exquisitely formed and as smooth and clear in coloring as a Tea Rose. They are so abundantly produced and not crowded around the central bud as in most cases, so that disbudding is really not re-

quired, for the blooms come of splendid form and size, quite as large as one could desire. It is deliciously fragrant, and the foliage has that leathery texture that enables it to withstand cutting winds and even slight frosts, so that instead of a plant marred by the climatic vicissitudes of the spring, we have one a picture of health. I could not name a better rose for a town grower, and it makes an ideal standard, with fine spreading head."—"Garden," London, Eng.

D. L. Hay (Double Red Rugosa)—Large double, deep crimson, in clusters. An excellent variety.

Madame G. Bruant, vig.—The first of a new race of hybrids. In the bud state the flowers are long and pointed; when open semi-double; pure white and fragrant, and produce freely in clusters at intervals throughout the summer; exceptionally hardy and vigorous; forms a handsome bush.

Rugosa Alba, mod.—A species from Japan. Single pure white flowers, of five petals; highly scented; a splendid shrub.

Rugosa Rubra, vig.—Another Japan variety. Flowers single, of a most beautiful bright rosy crimson, succeeded by large berries of a rich rosy red color, and are a great addition to the ornamental character of the plant.

Hybrid Perpetual and Hybrid Teas

This class thrives the best in a rich soil. The pruning should be regulated by the habit of growth, the weak shoots closely cut in, those which are vigorous left longer. Most of the varieties are fragrant; some of them, like **Alfred Colomb**, **Mme. Victor Verdier**, etc., are most deliciously perfumed.

Although they are styled **perpetual** bloomers, none of them are such in reality. However, many of them yield a fair second crop of flowers in the autumn, which is very accept-



able. Aside from this, there is no class, take it all in all, so popular and which gives such general satisfaction.

Alfred Colomb, free—Raised from Jacqueminot. Brilliant carmine crimson; very large, full, and of fine globular form; extremely fragrant, and in every respect a superb sort. Green wood with occasional pale greenish thorns; foliage large and handsome. One of the most useful sorts for general cultivation.

American Beauty, vig.—Large, globular; deep pink shaded with carmine; delicious odor; has proved to be a most desirable variety for forcing.

Anne de Diesbach, vig.—Raised from Le Reine. Carmine, a beautiful shade; very large. A superior garden sort; fragrant; one of the hardiest. Valuable for forcing.

Baron de Bonstetten, vig.—Rich velvety maroon; large, full. A splendid sort.

Baroness Rothschild, mod. or dwf.—Light pink; cupped form; very symmetrical; without fragrance. Very distinct and beautiful; one of the finest exhibition varieties. The wood is short-jointed; very hardy and a late bloomer.

Champion of the World—Flowers of large size. Color, lovely clear deep pink. A very free blooming hardy Rose.



ETOILE DE FRANCE

Clio—Flowers large, of fine, globular form, flesh color, shaded in the center with rosy pink; growth vigorous; handsome foliage. One of the finest new roses.

Duchess of Albany, or Red La France (Hybrid Tea)—Resembles the La France but is much deeper in color. Is a free bloomer producing an abundance of lovely buds and flowers throughout the season. Very double and full. Color, brilliant, rose pink. Exquisitely shaded.

Earl of Dufferin, vig.—One of the finest roses of recent years. Rich, brilliant, velvety crimson, shaded with dark maroon; large, full, finely formed; delightful fragrance. A vigorous grower. One of the finest dark roses. It should be in every collection.

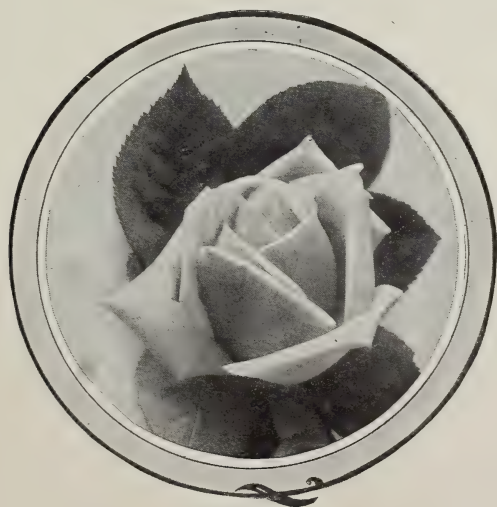
Etoile de France, vig. (Hybrid Tea)—Velvety crimson, on stiff erect stems, cupped form; continuous and free flowering. Very fragrant.

Fisher Holmes, free or vig.—Deep, glowing crimson; large, moderately full, and of fine imbricated form. A superb rose.

Francois Levet, vig.—Cherry red; medium size; well formed; free bloomer. Valuable on account of its vigorous habit.

Franz Deegan (Hybrid Tea)—Rich yellow shading to orange in the center of the flower. Is of a medium size. Strong grower.

Frau Karl Druschki—This is an exquisite new, pure white rose, sent out in 1900. To say we are pleased with it is putting it mildly,



MADAME JENNY GILLEMOT

(See Page 61)



Hybrid Perpetual—Continued

for in fact we are charmed with it. It is without doubt entirely hardy, a good grower, producing long buds and large pure white flowers. It is a profuse bloomer and blooms along during summer until stopped by frost, which we can vouch for.

General Jacqueminot, vig.—Brilliant crimson; not full, but large and extremely effective; fragrant, and of excellent hardy habit; forces well.

Gruss an Teplitz, vig. (Hybrid Tea)—Color scarlet shading to velvety crimson, very fragrant, a free grower and most profuse bloomer; handsome foliage, especially valuable as a bedding Rose. We can recommend it as one of the choicest Roses.

Jean Liabaud, free—This is one of the very darkest of all roses; the flowers are large, full and fragrant, and of the most intense dark rich velvety crimson imaginable.

John Hopper, free—Bright rose with carmine center; large and full. A profuse bloomer and standard sort.

John Keynes, free—Of brilliant red, shaded with velvety crimson; magnificent buds; a variety that is very satisfactory to all lovers of roses; good grower; quite hardy.

Jules Margotten, free—Bright cherry red; large; well formed; fragrant flowers.

Lady Helen Stewart, vig.—Bright crimson scarlet; large, full, and of perfect form, produced on long stiff stems, highly perfumed; distinct and fine. A beautiful and valuable variety.

Kaiserin Augusta Victoria (Hybrid Tea)—Valuable for open ground culture. A strong and early grower that is nearly as hardy as any of the hybrid perpetual kinds. Blooms continuously from spring until fall. Buds pointed, flowers large, full and double, elegant snowy white color, very fragrant.

Killarney (Hybrid Tea)—A beautiful new variety which has taken a prominent place among garden Roses. It is a strong and robust grower, very free flowering. Color a brilliant pink, blooms are large, buds long and pointed. An excellent rose.

La France, mod. (Hybrid Tea)—Raised from seed of a tea rose. Delicate silvery rose, changing to silvery pink; very large; full, of fine globular form; a most constant bloomer; the sweetest, and one of the most useful of all roses.

La Reine, free or vig.—Glossy rose, large, moderately full; very free flowering, and one of the most hardy. A useful rose, though no longer queen.

Liberty, free (Hybrid Tea)—A grand new rose, surpassing Meteor in brilliancy and purity of color. A free bloomer and retains its brilliancy of coloring a remarkably long time after being cut. Resembles Jacqueminot in size and fragrance.

Lyon (Hybrid Tea)—Pronounced by experts to be the most important introduction of modern times. Flowers large, full and double, of remarkable substance, shrimp-pink, edges coral-red or salmon-pink, shaded chrome-yellow. Exceedingly fragrant. A constant bloomer and perfectly hardy. Has been awarded the highest prizes at the many exhibitions in Europe.



GENERAL JACQUEMINOT

Madame Caroline Testout (Hybrid Tea)—A Rose of great beauty. Flowers and buds large and of elegant form. A bright satin rose color, deepening at the center to a clear red.

Madame Charles Wood, free (Dinsmore)—Flowers of a large size; color dazzling crimson; a constant bloomer.

Madame Gabriel Luizet, vig. or free—pink, distinct, very large, cupped shape; somewhat fragrant. One of the finest roses in the catalogue.

Madame Jenny Gillemot (Hybrid Tea)—Deep saffron-yellow, opening canary, with dark green shades. Buds long and pointed; flowers large, with immense petals.

Madame Plantier, free—Pure white; above medium size; produced in great abundance early in the season. One of the best hardy white roses.

Magna Charta, vig.—Pink, suffused with carmine; full, globular. Foliage and wood light green, with numerous dark spines. A fragrant, excellent rose. Valuable for forcing.

Margaret Dickson, vig.—Of magnificent form; white, with pale flesh center; petals very large, shell-shaped and of great substance; fragrant; a very promising variety; foliage very large, dark green.

Marshall P. Wilder, vig.—Raised from the seed of Gen. Jacqueminot. It is of vigorous growth, with healthy foliage; flowers large, semi-globular, full, well formed; color, cherry carmine, much like a light-colored Marie Baumann, or a shade deeper than Marie Rady, and very fragrant. In wood, foliage, and form of flower, it resembles Alfred Colomb, but the seedling excels that famous variety in vigor, hardiness, and freedom of bloom. It continues to bloom profusely long after the other Remontants are out of flower. In brief, it may be described as an improved Alfred Colomb, and as good a rose as has been raised by anyone. It is undoubtedly the finest of its color.

Mrs. John Laing, vig.—Soft pink; large and of fine form, produced on strong stems; exceedingly fragrant; one of the most valuable varieties for forcing and flowers continuously in the open ground. One of the most beautiful roses of recent introduction.



LA FRANCE
(See Page 60)

Mrs. R. G. Sherman Crawford, vig.—Raised by Dickson & Sons of Newtownards, Ireland. Color deep rosy pink, outer petals shaded with pale flesh, white at base of petals; flowers large, of perfect imbricated form, and freely produced, flowering from early summer until late in autumn. Growth vigorous. Awarded gold medal at the National Rose Society of England.

Paul Neyron, vig.—Deep rose color; good tough foliage; wood rather smooth; by far the largest variety in cultivation. A free bloomer; very desirable as a garden rose; valuable for forcing.

Pierre Notting, free—Deep maroon, illumined with bright crimson, often suffused with velvet; large, or very large; globular form, pointed buds, highly scented. A superb dark rose, often at its best in the autumn.

Prince Camille de Rohan, free—Deep velvety crimson; large, moderately full.

Soleil d'Or, vig. (Golden Sun)—A beautiful new hybrid perpetual rose. A robust, vigorous grower and free bloomer. Color, a rich golden yellow shaded with a beautiful deep red.

Hybrid Perpetual—Continued

Ulrich Brunner, vig.—Brilliant cherry red, a very effective color; flowers of fine form and finish, carried well upon the plant; petals of great substance; plant vigorous, hardy, and resists mildew. One of the best varieties for forcing and open-air culture.



LIBERTY

(See Page 60)

William McKinley, vig.—Introduced by us. A beautiful new Hybrid Perpetual rose. It has been thoroughly tested by us, and found to possess most excellent qualities. Of very vigorous growth and a free bloomer. Color, clear rose.

York and Lancaster—Noted for its extreme hardiness, never killing back by severest freezing. It is a great bloomer, the plant being nearly covered with its showy, attractive, semi-double flowers; if more double its beauty would be marred, and not so desirable. Its color is white, striped, dashed, and splashed with crimson purple. Beautiful. This is perhaps the rarest and most extraordinary rose in cultivation.

Austrian Roses

This class flowers on extreme ends of wood of previous season's growth; very little pruning is therefore required.

Harrison's Yellow, free—Double; bright yellow; very showy and fine.

Persian Yellow, free—Deep, bright yellow; small but handsome; double; a very early bloomer, and much the finest hardy yellow rose. This does best when budded.

Tea Roses

Bon Silene, free—Equally valuable for summer or winter blooming. Buds of beautiful form; an unusually free bloomer; color deep rose, shaded with carmine.

Catherine Mermet, mod.—One of the finest roses grown. The buds are very large and globular, the petals being recurved and showing to advantage the lovely bright pink of the center, shading into light creamy pink, reminding one of La France in its silvery shading. A strong grower and fine bloomer.

Gloire de Dijon, vig.—Noted for its large-sized flowers, its delicate tea scent, and its exquisite shades of color, being a blending of amber, carmine and cream.

Maman Cochet—Flowers large, full, clear carmine rose, shaded with salmon yellow. Plant very vigorous and free flowering.

Maman Cochet White, vig.—A sport from Maman Cochet, which it resembles in every particular except color, which is pure white, occasionally tinged with blush.

Marechal Neil, free—A beautiful deep yellow; large and globular; fragrant; free flowering; one of the finest yellow tea-scented roses; a good climber. Well known and popular.

Papa Gontier, vig.—A magnificent red Tea. It is a strong grower, with fine healthy foliage; the buds are large and long, with thick, broad petals of dark carmine crimson color, changing to a lighter shade in the open flower. An excellent winter-blooming variety, and one of the best for outdoor planting, opening up its flowers beautifully.

Perle des Jardins, free—A beautiful straw color, sometimes deep canary; very large, full and of fine form; stiff shoots or stems, and very free flowering.

The Bride, free—A lovely, pure white Tea Rose of large size. Admirable for forcing, as well as for summer flowering. The buds have more substance than Niphetos, are full and double and possess the good characteristics of Catherine Mermet.

Polyantha, or Fairy Roses

This is an interesting group from Japan. The foliage and flowers are both very small, the latter being produced in panicles. They are ever blooming, of slender growth, produce extremely beautiful little flowers and are quite as hardy as the Hybrid Noisettes and Hybrid Teas. As an edging for a bed of monthly roses they are very effective and useful.

Their character of blossoming in panicked clusters, gives them a distinctive interest, and they are much esteemed. We strongly recommend them to all devotees of the rose.

Baby Dorothy, vig. (Maman Levavasseur)—

This latest introduction of the well-known raisers of the now famous Crimson Baby Rambler (Mme. Norbert Levavasseur) is similar in all respects to that variety except that the flowers are of a clear brilliant pink and very freely produced.

Baby Rambler Pink, vig. (Anny Muller)—

Large clusters of brilliant rose-colored flowers in great profusion. A splendid bedding variety. Blooms all season until buds are killed by severe frost.

Baby Rambler Red, vig. (Madame Norbert

Levavasseur)—A dwarf form of the widely known and popular climbing rose, Crimson Rambler, being hardy, vigorous and perpetual flowering. The flowers are large, well formed, of a crimson red color, and borne in clusters. For growing in pots in the house, or as a bedding variety, it will be found invaluable.

Baby Rambler White, vig. (Katherine Zeimet)

—Pure white in large clusters; very freely flowering.

Clothilde Soupert, vig.—Medium size; very double and beautifully imbricated like an aster; produced in clusters; pearly white, with rosy lake centers, liable to vary, producing often red and white flowers on same plant. Valuable for florists for designs, or as a market pot plant, being a remarkably free and constant bloomer, and of easy culture. One of the most valuable roses.

Little White Pet—A very charming Fairy Rose; flowers of perfect form, very double and full; pure creamy white, sometimes delicately tinged with salmon rose.

Tree Roses

These beautiful novelties are without question the most pleasing and beautiful of anything ever offered in the rose line. There is nothing in the history of horticulture that is more beautiful than the Tree Rose. We import them direct from the very best Holland growers, and our stock is exceptionally strong and fine.

In addition to the Crimson Rambler, we offer them in pink, red, white and yellow.

Crimson Rambler (Tree form)—Nothing in the line of roses has so completely captivated the ladies as the Ramblers. Outside of their gorgeous effect as climbers, the Ramblers for cutting purposes, cover a large field of adaptability. When grown in tree form, the Crimson Rambler reaches the ideal of perfection, and is incomparably beautiful. The novelty of its form and growth combine to make the Crimson Rambler Tree Rose one of the most ornamental and desirable decorative plants. It is perfectly hardy.



RED BABY RAMBLER



DIRECTIONS FOR TRANSPLANTING TREES AND SHRUBS

We cannot attempt to give complete directions on all points connected with Tree Planting, but simply a few hints on the more important operations. Transplanting is to be considered under the following heads:

1st—THE PREPARATION OF THE SOIL.

—For fruit trees the soil should be dry, either natural or made so by thorough drainage, as they will not live or thrive on a soil constantly saturated with stagnant moisture. It should also be well prepared by twice plowing, at least, beforehand, using the subsoil plow after the common one at the second plowing. On new, fresh lands, manuring will be unnecessary; but on lands exhausted by cropping, fertilizers must be applied, either by turning in heavy crops of clover, or well decomposed manure or compost. To ensure a good growth of fruit trees, land should be in as good condition as for a crop of wheat, corn or potatoes.

2d—THE PREPARATION OF THE TREES.—In regard to this important operation, there are more fatal errors committed than in any other. As a general thing, trees are planted in the ground precisely as they are sent from the nursery. In removing a tree, no matter how carefully it may be done, a portion of the roots are broken and destroyed, and consequently the balance that existed in the structure of the tree is deranged. This must be restored by a proper pruning, adapted to the size, form, and condition of the tree, as follows:

Standard Orchard Trees.—These, as sent from the nursery, vary from five to seven feet in height, with naked stems or trunks, and a number of branches at the top forming a head. These branches should all be cut back to within three or four buds of their base. This lessens the demand upon the roots, and enables the remaining buds to push with vigor. Cut off smoothly all bruised or broken roots up to the sound wood. In case of older trees, of extra size, the pruning must be in proportion; as a general thing it will be safe to shorten all the previous year's shoots to three or four buds at their base, and where the branches are very numerous some may be cut out entirely.

Dwarf Trees, if of two or three years growth, with a number of side branches, will require to be pruned with a two-fold object in view, viz., the growth of the tree and the desired form. The branches must be cut into the form of a pyramid by shortening the lower ones, say one-half, those above them shorter, and the upper ones around the leading shoots

to within two or three buds of their base. The leader itself must be shortened back one-half or more. When trees have been dried or injured much by exposure, the pruning must be closer than if in good order.

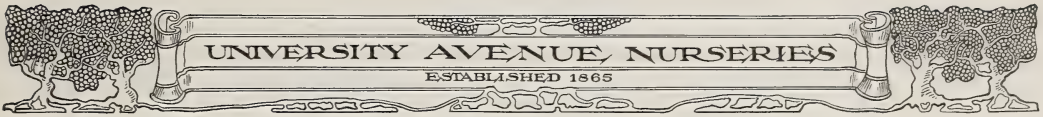
Yearling Trees Intended for Pyramids.—

Some of these may have a few side branches, the smallest of which should be cut clean away, reserving only the strongest and the best placed. In other respects they should be pruned as directed for trees of two years growth. Those having no side branches should be cut back so far as to insure the production of a tier of branches within twelve inches of the ground. A strong yearling, four to six feet, may be cut back about half, and the weaker ones more than that. It is better to cut too low than not low enough, for if the first tier of branches be not low enough the pyramidal form cannot afterwards be perfected.

3d—PLANTING.—Dig holes in the first place large enough to admit the roots of the tree to spread out in their natural position; then, having the tree pruned as before directed, let one person hold it in an upright position, and the other shovel in the earth, carefully putting the finest and the best from the surface in among the roots, filling every interstice, and bringing every root in contact with the soil. When the earth is nearly filled in, a pail of water may be thrown on to settle and wash in the earth around the roots; then fill in the remainder and tread gently with the foot. The use of water is seldom necessary, except in dry weather early in fall or late in spring. Guard against planting too deep; the trees, after the ground settles, should stand in this respect as they did in the nursery. Trees on dwarf stock should stand so that all the stock be under the ground, and no more. In very dry, gravelly ground, the holes should be dug twice the usual size and depth, and filled in with good loamy soil.

4th—STAKING.—If trees are tall and much exposed to winds, a stake should be planted with the tree, to which it should be tied in such a manner as to avoid chafing. A piece of matting or cloth may be put between the tree and the stake.

5th—MULCHING.—When the tree is planted throw around it as far as the roots extend, and a foot beyond, five or six inches deep of rough manure or litter. This is particularly necessary in dry ground, and is highly advantageous everywhere both in spring and fall planting. It prevents the ground from baking



or cracking, and maintains an equal temperature about the roots.

6th—AFTER-CULTURE.—The grass should not be allowed to grow around young trees after being planted, as it stunts their growth. The ground should be kept clean and loose around them until, at least, they are of bearing size.

Treatment of Trees that have been Frozen in the Packages, or Received during Frosty

Weather or after long Exposure.—Place the packages, unopened, in a cellar or some such place, cool, but free from frost, until perfectly thawed, when they can be unpacked, and either planted or placed in a trench until convenient to plant. Treated thus they will not be injured by the freezing.

If dried from long exposure, bury entirely in the ground, or place in water from 12 to 24 hours, and should be pruned more closely than ordinary.

WINTER NURSERY STOCK PROCURED IN THE FALL

In sections where the winters are very severe, it is not advisable to set out young trees and plants in the fall, but the practice of procuring them in the fall, covering them with earth during the winter, and planting them in the spring is becoming more and more popular, as experience has demonstrated its advantages. In the fall Nurserymen are not hurried in their own planting; the season for shipping them is comparatively long, and the weather not nearly so changeable as in the spring. Railways are not so much hurried and there is much less chance for injurious delays than in the spring. It being practicable to plant trees so procured as soon as the frost is out, they become thoroughly established the first season.

Some have an impression that trees dug in

the fall and trenched in over winter are worthless. This is a great mistake.

To insure success, select a spot where no water will stand during the winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to lie at an angle of not more than 30 degrees with the ground. Having placed one layer of the roots in this trench, cover them with mellow earth, extending well up on the bodies, and see that this is **firmly packed**. Then add another layer of trees overlapping the first, and continuing as at first until all are heeled in. As soon as this is done, cover the tops so well with evergreen boughs that they will be thoroughly protected from winds.

USEFUL TABLES

SUITABLE DISTANCES OF TREES, ETC. IN PLANTING.

Apples—Standard	30 to 40 feet each way
Pears—Standard	20 to 25 feet each way
Pears—Dwarf	10 feet each way
Cherries—Sweet	18 to 20 feet each way
Cherries—Sour	16 to 18 feet each way
Plums	16 to 18 feet each way
Peaches	16 to 18 feet each way
Apricots	16 to 18 feet each way
Nectarines	16 to 18 feet each way
Quinces	10 to 12 feet each way
Currants	3 to 4 feet each way
Gooseberries	3 to 4 feet each way
Raspberries	3 to 4 feet each way
Blackberries	6 to 8 feet each way
Grapes	8 to 10 feet each way
Strawberries	1½ by 3 feet each way

NUMBER OF PLANTS ON ONE ACRE AT VARIOUS DISTANCES.

At 3 feet each way	4,840
At 4 feet each way	2,729
At 5 feet each way	1,742
At 6 feet each way	1,200
At 8 feet each way	680
At 10 feet each way	430
At 12 feet each way	325
At 15 feet each way	200
At 18 feet each way	135
At 20 feet each way	110
At 25 feet each way	70
At 30 feet each way	50

To estimate the number of plants required for an acre, at any given distance, multiply the distance between the rows by the distance between the plants, which will give the number of square feet allotted to each plant, and divide the number of square feet in an acre (43,560) by this number, the quotient will be the number of plants required.



SPRAYING

The necessity of spraying is acknowledged by all authorities as being one of the requirements of profitable fruit growing.

The successful fruit grower looks upon his spraying apparatus, not as a source of expense, but as an investment that returns a greater percentage of profit than any other investment on his farm.

It not only insures better fruit, but more fruit, besides increasing the value of it commercially by increasing the quality of it.

If spraying is a good thing for the large fruit grower it is equally so for the small fruit grower, or the farmer with only a few trees for personal use or local market.

We consider the question of spraying of sufficient importance to devote considerable space in this catalogue, not only to spraying formulas but also spraying apparatus.

We are desirous of placing in the hands of our customers not only the best trees and shrubs that can be produced, but also the very best spraying apparatus manufactured to-day. With that end in view, we have arranged with the manufacturers of the Morris Sprayer to act as their agents and in the following pages will be found engravings and descriptions of a complete line of sprayers from the small knapsack sprayer to the large power sprayer.

We are equipped to furnish any of the sprayers enumerated, promptly upon receipt of order for same. A careful perusal of the spraying department of this catalogue will enable you to make the selection of a sprayer to meet the demands of your orchard or farm as well as your pocketbook.

We solicit your patronage for a product that will assure you satisfaction.

FORMULAS

BORDEAUX MIXTURE

Copper Sulphate.....	6 pounds
Quicklime	4 pounds
Water	45 gallons

To destroy leaf-eating insects, add four ounces of Paris green. For Peach, use three pounds each of copper sulphate and lime, and three ounces of Paris green, on account of the tenderness of the foliage.

When a single barrellful of the Bordeaux mixture is required, dissolve in a coal-oil barrel partly filled with water, 5 pounds of copper sulphate (bluestone). Hot water facilitates the operation. To dissolve quickly, place the copper sulphate in a cotton bag or basket, and suspend this in the vessel containing water so that it is entirely immersed. In another vessel slake five pounds of fresh lime with as many gallons of water. If the lime, when slaked, is lumpy or granular, it should be strained through a fine sieve or coarse sacking. Then nearly fill the barrel containing the copper sulphate now in solution, with water, add sufficient lime water and it is ready for use. Use good lime and slake carefully.

When a large amount is contemplated, it is a good plan to make stock solutions separately, of lime and bluestone which can be diluted as

needed; dissolve 100 pounds of copper sulphate in 40 gallons of water; two gollons, when dissolved will contain five pounds of the salt. In another barrel, slake 100 pounds of fresh lime and make up a milk by adding 40 gallons of water; when well stirred, two gallons should contain five pounds of lime. When, as before, it is desired to make a barrel of Bordeaux mixture, take two gallons of the stock solution of copper sulphate, partly fill the barrel with water, and add two gallons of the milk of lime; if the lime is of good quality, it will be sufficient to neutralize it completely. If the lime is air-slaked or impure, the right quantity can be ascertained by applying the ferro-cyanide of potassium test. A two-ounce bottle containing a saturated solution of ferrocyanide of potassium (yellow prussiate of potash) added to the mixture will turn brown. Add the milk of lime till the drop of ferro-cyanide of potassium remains colorless, then add a little more milk of lime to make sure that the strength is uniform, and fill the barrel with water.

LIME, SALT AND SULPHUR

As an all-round remedy (insecticide and fungicide) it promises very well indeed, and we shall be pleased to have as many as will join us



in making further experiments next April, and report results. The proportion of this wash may be varied to almost any extent. A good pump will spray two pounds of lime to the gallon of mixture without clogging, and if the lime be good and properly slaked, there will be no settling in the barrel. The proportions recommended from California are 35 pounds lime, 15 pounds sulphur, and 15 pounds salt in 50 gallons mixture, and the California people suggest that a larger proportion of lime and sulphur than they use might be advantageous in the East, and that with them salt is not an essential. We find that 35 pounds lime, 15 pounds sulphur and 10 pounds salt, with enough hot water to make 30 gallons of mixture will spray very freely and cover the tree more perfectly. To prepare this wash, place half of the water in a large kettle, add the salt and sulphur, bring the water to a boil, throw in the lime, adding hot water from another kettle to prevent burning, boil two to three hours, increase the quantity to 30 gallons with hot water and apply while hot.

We would recommend crude petroleum, 20 to 25 per cent. with water, for apples, pears, plums, etc., and whale-oil soap, full strength and quantity, for peaches.

ARSENITE OF LIME

This insecticide is coming more into popular favor yearly, and is worthy of it. Arsenite of lime is at least one-half cheaper than Paris green, is equally efficient, and will not burn the tenderest foliage at the strength ordinarily applied:

To make 800 gallons of spraying mixture—

White Arsenic.....	2 pounds
Sal Soda.....	8 pounds
Water	2 gallons

Boil all together for 15 minutes or till the arsenic dissolves. One pint of this stock solution and two pounds of slaked lime, added to a barrel of water, is equal in insecticidal value to one-quarter pound of Paris green, and costs half as much. Arsenite of lime ought to be used more generally in place of Paris green.

ARSENITE OF LEAD

Arsenite of Lead.....	1 pound
Water	150 gallons

HELLEBORE

Fresh White Hellebore.....	1 ounce
Water	3 gallons

KEROSENE EMULSION

Hard Soap.....	$\frac{1}{2}$ pound
Boiling Water.....	1 gallon
Kerosene	2 gallons

Dissolve the soap in hot water, add the kerosene, and churn with a pump, by directing the nozzle into the solution for five or ten minutes until it emulsifies (or becomes of a thick, creamy consistency). This is the stock emulsion and will remain in this state indefinitely. It must be diluted with water according to directions. From four times for the San Jose scale, when the leaves are off, to twenty times for Aphis. For insects that suck, cabbage worms, and all insects that have soft bodies.

COPPER SULPHATE SOLUTION

Copper Sulphate.....	1 pound
Water	25 gallons

This should be used only before the foliage appears. It is easily applied, and acts as a general germicide and disinfectant. In simple solution copper sulphate is very injurious to foliage. When lime is added, as in making Bordeaux mixture, its corrosive action is neutralized and injury to the foliage prevented. In this way a larger quantity of bluestone may be used, and it adheres to the foliage better by the agency of lime.

AMMONIACAL COPPER CARBONATE

Copper Carbonate.....	5 ounces
Ammonia	2 quarts
Water	50 gallons

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, as it should be diluted with water as required. For the same purpose as Bordeaux.

TOBACCO

Boil tobacco stems, and use at the rate of two gallons to each pound of stems, for sucking insects.

CAUTIONS

Do not mix the copper preparations in iron or tin; always use wood, brass or earthen vessels.

Study carefully the nature of the insect or disease, and select the remedy that is most likely to destroy it without danger of injuring the plants.



SPRAYING TABLE

The following directions should be followed as closely as possible, as they have been formulated after much experience. **Never spray fruits when in bloom.**

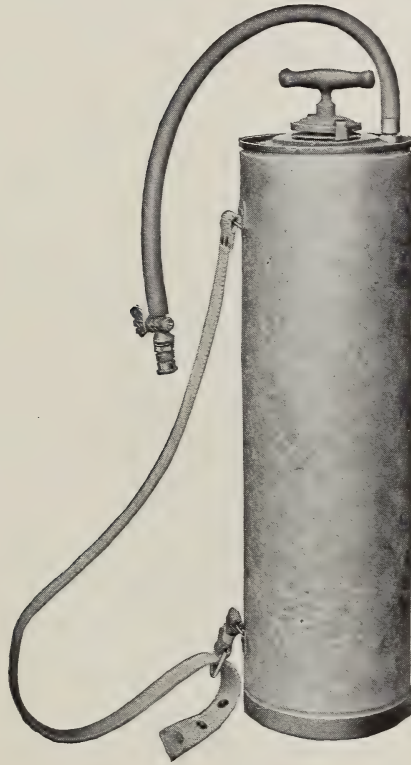
PLANT	First Application	Second Application	Third Application	Fourth Application
Apple Scab, codlin moth, bud moth.	When buds are swelling, Bordeaux, copper sulphate solution and arsenites.	Just before blossoms open, Bordeaux. For bud-moth, arsenites when leaf-buds open.	When blossoms have fallen, Bordeaux and arsenites.	Ten to 14 days later, Bordeaux and arsenites.
Cherry Rot, aphid, slug	As buds are breaking, Bordeaux. When aphid appears kerosene emulsion.	When fruit has set, Bordeaux. If slugs appear, Hellebore.	Ten to 14 days if rot appears, ammoniacal copper carbonate.	Ten to 14 days later, ammoniacal copper carbonate.
Currant Mildew, worms.	At the first sign of worms, arsenites or Bordeaux.	Ten days later, Hellebore. If the leaves mildew, Bordeaux.	If worms persist, Hellebore.	After fruit is harvested, apply Bordeaux freely.
Gooseberry Mildew, worms.	When the leaves expand, Bordeaux; and for worms, as above.	Ten to 14 days later, Bordeaux. For worms, as above.	Ten to 14 days later, ammoniacal copper carbonate. For worms as above.	Ten to 14 days later, repeat third.
Grape Fungous diseases and flea beetle.	In spring, when buds swell, copper sulphate solution, Paris green for flea beetle.	When leaves are 1 to 1½ inches in diameter, Bordeaux; Paris green for larvae of flea beetle.	When the flowers have fallen, Bordeaux; Paris green, as before.	Ten to 14 days later, Bordeaux.
Peach Nectarine Apricot Brown rot.	Before buds swell, copper sulphate solution.	Before the flowers open, Bordeaux.	When fruit has set, repeat first.	Ten to 14 days later, repeat.
Pear Leaf-blight, scab, psylla, codlin moth.	As buds are swelling, copper sulphate solution or Bordeaux.	Just before blossoms open, Bordeaux; kerosene emulsion when the leaves open for psylla.	After the blossoms have fallen, Bordeaux and arsenites, kerosene emulsion if necessary.	Eight to 12 days later, repeat third.
Plum Fungous diseases, curculio.	During first warm days of early spring Bordeaux for black knot. When leaves are off in the fall, kerosene emulsion for plum scale.	When buds are swelling, Bordeaux for black knot and other fungous diseases. During mid-winter, kerosene emulsion for plum scale.	When blossoms have fallen, Bordeaux; begin to jar trees for curculio before buds start in spring; kerosene emulsion for plum scale.	Ten to 14 days later, Bordeaux; jar trees for curculio every two to four days.
Quince Leaf and fruit spot.	When the blossoms buds appear, Bordeaux.	When fruit has set, Bordeaux and arsenites.	Ten to 20 days later, Bordeaux.	Ten to 20 days later, Bordeaux.
Raspberry Blackberry Dewberry Atrachnose rust.	Before buds break copper sulphate solution, Bordeaux. Cut out badly diseased canes.	During summer if rust appears on the leaves, Bordeaux.	Repeat second if necessary.	Orange or red rust is treated best by destroying entirely the affected plants.
Rose Mildew, black spot, red spider, aphid.	For mildew, thoroughly stir the soil, encourage growth, is best thing that can be done.	For black spot, spray plants once a week with ammoniacal copper carbonate, using fine spray.	For red spider, spray plants twice a week with kerosene emulsion. Apply to under side of foliage.	For aphid, spray affected parts with kerosene emulsion when necessary.

San Jose Scale. Lime Sulphur and Salt solution applied in early part of March, also kerosene emulsion when young appear in spring and summer.



SPRAYING APPARATUS

Sprayer No. 10



No. 10 is a Compressed Air Hand Sprayer, made of galvanized iron or brass. All working parts of the pump coming in contact with the solution are made of brass. The reservoir is thoroughly riveted and soldered and guaranteed not to burst. You will note the handiness of the spring on the bottom and the locking device on top of the can, which excels all others heretofore put on the market. Six to eight strokes of the plunger will produce a spray for several minutes and two such operations will discharge the contents. It is used where a small practical machine is wanted for spraying small field crops, rose bushes, grass, whitewashing, etc.

Price, Galvanized, \$4.50 Brass, \$7.00
Automatic Stop Cock and Nozzle, \$1.00 Extra



Sprayer No. 18



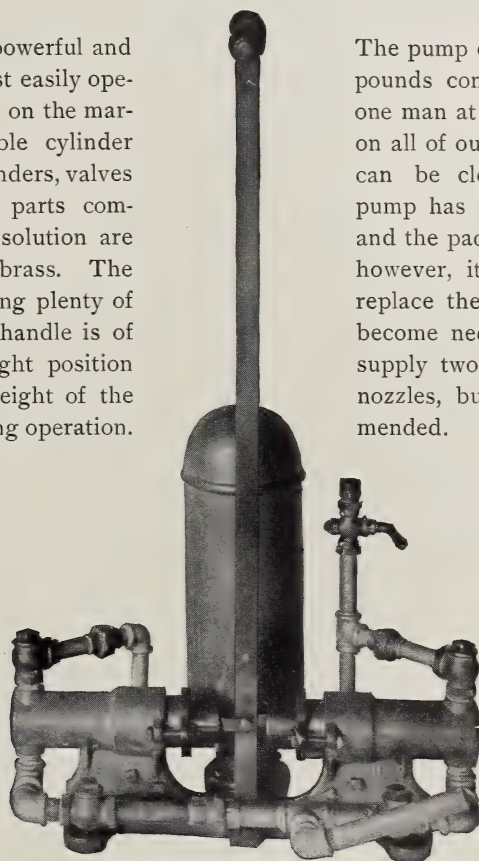
No. 18 is a Compressed Air Bucket Sprayer and holds about eight gallons of solution. It is carried very easily by the handles and it will set nicely on a wheelbarrow and is equal to any emergency for spraying purposes. All working parts of the pump are made of brass. There is an agitator at the bottom which keeps the solution thoroughly mixed. It is simple in construction, perfect mechanically and fully guaranteed. It is equipped with 8 feet 4-ply hose, 1 Vermorel nozzle ready for work.

Galvanized, \$13.50 Brass, \$16.00

Sprayer No. 22

No. 22 is the most powerful and without exception the most easily operated Hand Power Pump on the market to-day. It is a double cylinder plunger style pump. Cylinders, valves as well as all working parts coming in contact with the solution are made of good quality of brass. The air chamber is large, giving plenty of pressure. The vertical handle is of steel, and being in upright position and in the center, the weight of the operator helps the pumping operation.

The pump easily develops 125 to 150 pounds constant pressure with only one man at the lever. The valves, as on all of our pumps, are exposed and can be cleaned very easily. This pump has a very large stuffing box and the packing will last indefinitely; however, it is a very easy matter to replace the same whenever it might become necessary. This pump will supply two leads of hose with four nozzles, but two nozzles are recommended.



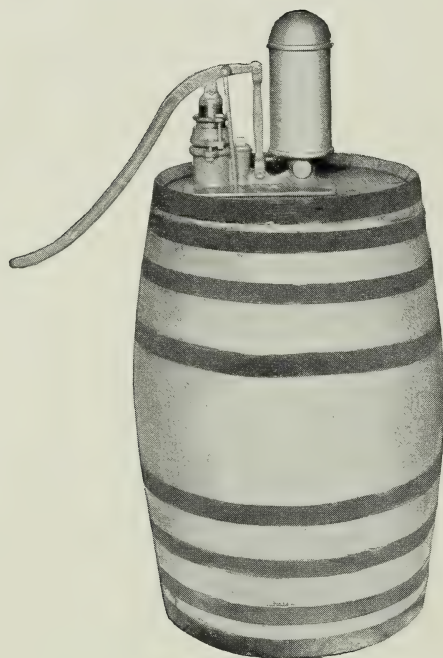
This machine is suitable for all hand power service in orchards, also in orange groves, and every person in need of a sprayer who cannot afford a large machine should look at this sprayer before purchasing and be convinced that he is getting the best sprayer for the least money that will answer his purpose.

All pumps are guaranteed and tested before leaving the factory. This pump is used in connection with tank or barrel, with either one or two discharges. Each discharge pipe consists of 15 or 20 feet $\frac{1}{2}$ -inch hose and the extension may be of iron or bamboo as ordered. The pump is not equipped with any discharge pipe, and may be ordered as desired.

Price, \$30.00



Sprayer No. 25



No. 25 is a Barrel Compressed Air Sprayer, for orchard and other uses. This pump is plunger style, proven to be the most easily operated for all spraying purposes. All the working parts are of brass, which makes them non-corrosive. This pump is simple in construction, so that there is nothing to get out of order. Has a long handle, which is easy to operate. This pump is especially adapted for orchard work, but it may be used for spraying potatoes and other field crops as well as whitewashing. It has a very large air chamber and will spray several minutes after the pump is stopped. A plunger style pump is better suited for the handling of lime, bordeaux and spraying solutions than any other style known. It is fitted with an agitator which works around the bottom of the barrel and will not get out of order. It is not necessary to remove the pump in order to replace packing or clean or repair valves, as all working parts are on top of the barrel. A drip cock at the bottom of the pump cylinder permits thorough cleaning of the pump and should be opened when through with the season's work as this will prevent damage from freezing.

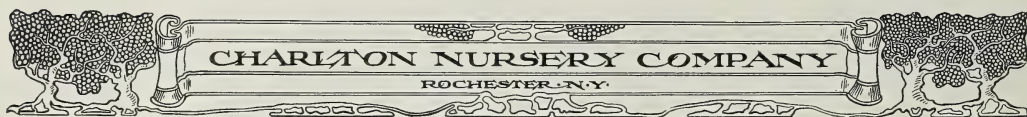
Price, complete, \$18.00 Without Barrel, \$15.00

Sprayer No. 14 "A"

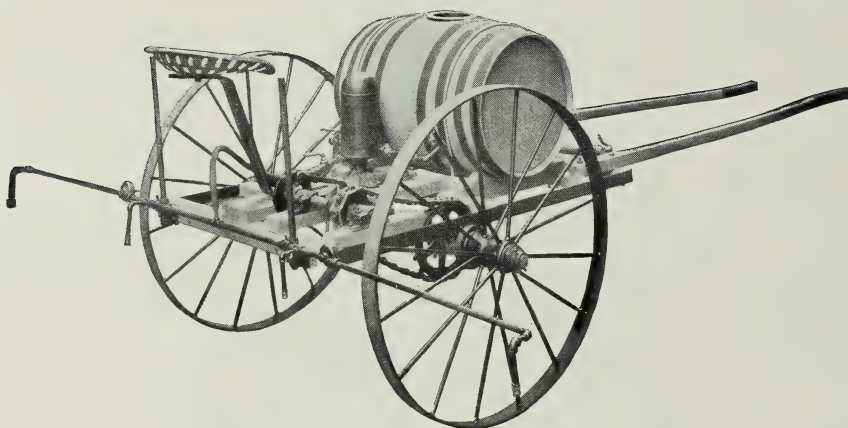


No. 14 "A" is a Hand Power Potato and Orchard Sprayer and is preferred by a great many users to anything on the market, as it is not only reasonable in cost but will do a great deal of work. This sprayer is mounted on two iron wheels, and is used for spraying potatoes and other field crops and for small orchard operations. We have spared no expense in producing a machine which experience has taught us the farmer wants. It is built throughout of the best material. All the working parts of the pump are brass, and there is nothing to get out of order. This machine, as all others, is fully tested before shipment is made. The machine is furnished with a four-row potato attachment for field work or an orchard attachment for tree spraying. One man does the work in both the potato field and orchard. Without a doubt this is the best hand operated machine on the market to-day. We guarantee the machine to give utmost satisfaction. It is prettily painted a color that will wear well.

Price, \$50.00



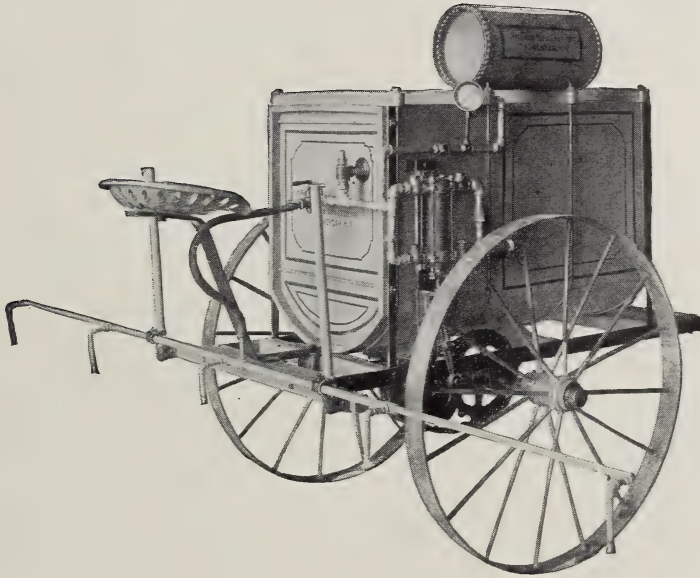
Sprayer No. 14 "B"



No. 14 "B" is a Horse Power Potato or Orchard Sprayer. The price of this machine is within the reach of everyone who is looking forward to getting the most from his acreage. The construction is of the best, and is very similar to our other horse-power outfits, only the pump is single acting and the solution tank holds fifty gallons, and is a barrel instead of a cypress tank. The wheels are of steel and will not fall apart from exposure. On account of its construction this machine will develop very high pressure and has a capacity to spray four rows of field crops or work well on orchard spraying. The power is generated from the axle, this transmission of power makes the machine work easier than any machine of like capacity that we have ever seen. The agitator works constantly and automatically. All the working parts of the pump are of brass which is non-corrosive. This machine is equipped with pressure gauge, relief valve and one attachment. This machine can also be operated by hand as well as by horse power, so that there is no danger of not being able to do the work. All valves are exposed and can be cleaned very easily. The wheels track from four to six feet apart, thus straddling two rows, when one horse is used. When ordering state width of row.

Price, \$65.00

Sprayer No. 20

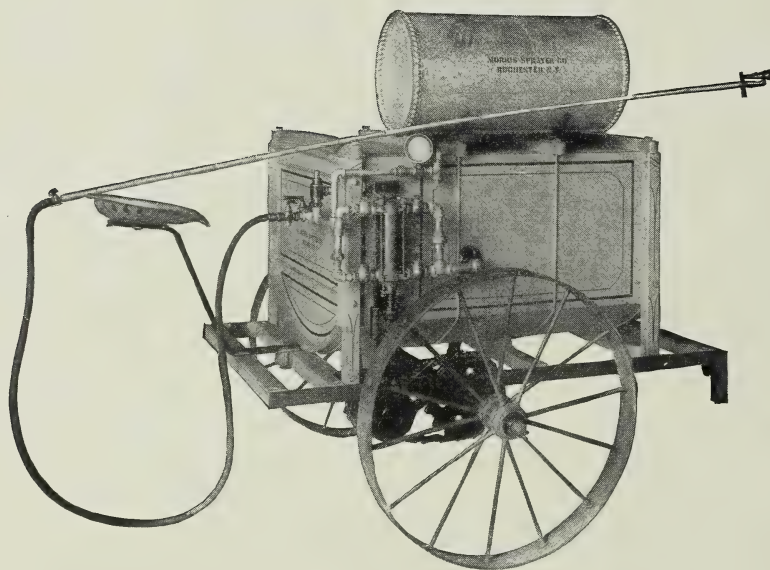


No. 20 is a Horse Power Compressed Air Sprayer for field crops and orchard work. We take pleasure in presenting this machine to the public which we feel will fill a long felt want. We have not tried to build it as cheaply as possible, but from first to last, both in material, workmanship and experience considered quality only, producing a machine which is able to do the business with sufficient strength in each of its tested parts to withstand the most severe usage. Our chain drive is sure to produce the power necessary to have sufficient air pressure for all spraying purposes. This transmission of power is more direct and simple than any eccentric or any other drive can be or is now in use. The pump, like all our pumps, is made of brass throughout with large $\frac{3}{4}$ checks and fitted with automatic safety valve and a by-pass to release the pressure; fitted with a 200-pound pressure gauge, 10-gallon air chamber, 100-gallon solution tank and mechanical agitator. The pump is fastened directly to the angle iron in line with the drive so that there is nothing to get out of line or place, and high enough to permit good drainage when not in use.

Price, \$125.00



Sprayer No. 16

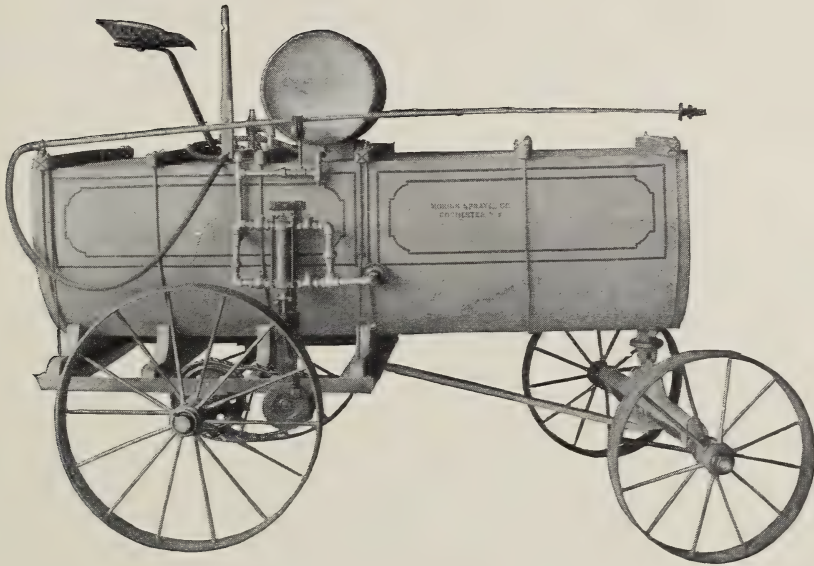


No. 16 has a 150-gallon solution tank and is used where a medium sized sprayer is required to do all the work, as this is a field as well as an orchard sprayer. This machine is fitted with a thirty-gallon electrically brazed air chamber guaranteed to be air tight, and is fitted with two pumps, one on each side of the solution tank, in line with the drive and fastened to the angle iron so that there is nothing to get out of order. The pumps are of brass and work independently and are double acting. This machine is mounted on two iron wheels and is always drawn by two horses. The agitator sweeps the full length of the solution tank and works constantly, keeping the solution thoroughly mixed. All the brass valves are exposed as on the other machines and are easily cleaned and replaced. Every machine is made so that it is either a hand power or power sprayer and is fitted with a large handle within easy reach of the driver. This machine is fitted for orchard work, field work or vineyard work as ordered. One attachment comes with the machine and all attachments are interchangeable.

Price, \$200.00



Sprayer No. 15



No. 15 is an Orchard Sprayer only. This machine, like all our machines, is built from actual experience and thought. This machine we know is not surpassed by any manufactured to-day for orchard use. It is equipped with everything to make it complete, ready for work. It has a thirty-gallon electrically brazed air chamber, which is guaranteed to be absolutely airtight, also pressure gauge and relief valve. No detail has been overlooked in the construction of this machine to give the best satisfaction to the user. The construction is simple throughout which makes it easy to operate and care for. It is mounted on four wheels, has two pumps, one on each side, fastened directly to the angle iron in line with the drive, so that there is nothing to get out of line or place. The pumps are of brass as well as the working parts coming in contact with the solution. All the parts on our machines are interchangeable, so that if any certain part gives out just send us the letter and number and we will send you the part, which we guarantee to fit without any trouble.

The solution tank is made of $1\frac{1}{4}$ -in. clear heart cypress and holds 250 gallons solution. The agitator is absolutely new and sweeps the full length of the bottom of the tank; it is also fitted with a handle to stir solution, while machine is standing, without leaving seat.

Price, \$225.00



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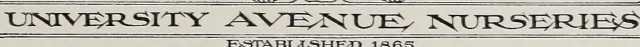
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WHO PLANTS A TREE

WHO plants a tree for future years
Stays not with his own joys and tears,
But reaches out with thoughtful care,
With ardent hope and earnest prayer,
To make more bright and glad the morn
Of generations yet unborn;
The paths of future days to bless,
Which his own feet may never press.
With gifts of love the work is fraught,
'Tis prompted by no selfish thought.
A giver he of blessings free
Who plants a tree.

